

THE
Accomplisht Midwife,

Treating of
The Diseases of Women With
Child, and in Child-bed.

AS ALSO,

The best Directions how to help them in
Natural and Unnatural Labours.

With fit Remedies for the several Indis-
positions of New-born Babes.

Illustrated with divers fair Figures, newly and
very correctly engraven in Copper.

A Work much more perfect than any yet extant in
English: being very necessary for all Teeming-
Women, as also for all Physicians, Chirurgians
and Midwives that practise this Art.

Written in *French* by FRANCIS MAURICEAU.
Translated, and enlarged with some Marginal
Notes, by HUGH CHAMBERLEN M.D.
and Physician in Ordinary to his Majesty.

L O N D O N,

Printed by J. Darby, to be sold by Benjamin Bil-
lingley at the Printing-Press in Cornhill, near
the Royal Exchange, 1673.

75-81 a. 6 1653

T H T

A complete Midwinter

Traveller

The Journal of Captain

John A. Smith

Vol. I

The first part of the

Journal of Captain

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The Author's Epistle Dedicatory.

To all my dear Brethren, the Sworn Master-Chirurgeons of the City of Paris.

GENTLEMEN,



Having need of a firm and solid Prop for the weakness of my Conceptions, I shall imitate most Authors, who ordinarily choose the protection of some Person of Credit; under whose Names they publish their Works to the World: But I shall not follow the custom of many, who dedicate them for the most part to persons who have no manner of knowledge of the matter of which they treat; induced thereto, rather in hopes of some mercenary recompence, than any other motive. This is, *Gentlemen*; that which obligeth me to address my self to you (as to those who alone are fit Judges of it) and to offer you the

The Author's Epistle

first fruits of my Labours, which might run the hazard of being gnawed by the Worm of Envy, if not put into your hands to protect. I offer it to you, in acknowledgment of the honour you did me, when some time since you received me into your famous Company; and to acquit my self of the Obligation I owed you: for, being a Member of your Body, all my pains ought to be for you. This is the reason why I could not present it to any other person, without being guilty of a domestick larciny. By giving it you, I am liberal of your proper Goods; or rather I render you an account only of the Talent you entrusted me with to improve: I mean the true Precepts of this noble Art of *Chirurgery*, of which you have a knowledge and experience so perfect, that every one is obliged openly to confess, that you are alone, amongst all the Chirurgeons of *Europe*, of whom it may be justly said, *Vos Sol, alios umbra regit.*

I shall refrain, Gentlemen, to praise you upon this subject; for (besides that it deserves a Pen more able than mine, to acquit it self according to your merits) I may fear, that I should be silenced by such, as would alledge to me for so doing, that
with

Dedicatory.

with which he once was reproached, who undertook to praise *Hercules* in publishing his Heroick Actions to the People of *Lacedaemonia*: Who (answered one) is he that knows him not? and doth not esteem him to be in the number of the immortal Gods? So likewise may it be said to me; Who is he that knoweth not the Master-Chirurgeons of *Paris*? Is it not manifest that you are that fruitful Spring, to which they come from all places of *Europe* to draw the perfection of so fair an Art? and whither many Princes and Princesses of strange Countries are obliged to have recourse for the preservation and recovery of their health, which they believe cannot be obtained so easily, and with so much assurance from any other as from you? Is it not known likewise, that our puissant Monarch hath this many years entrusted wholly his Sacred Person into the hands of him, who through his merits is at present the Head of your illustrious Body? Neither can it be forgotten, that this great King did, through a fatherly goodness which he had for the preservation of all the Nobility, that accompanied him the last year in his Conquests in *Flanders*, command three or four of you to stanch the blood which was spilt

The Author's Epistle

before that mighty City *de L'Isle*, which he brought under his obedience? Was it not then seen, how divers persons of great quality (who were mortally wounded in signalizing themselves at the Attaque of that strong Place) seem'd wholly reviv'd at the instant they received the news of the arrival of these excellent Chirurgeons, upon the confidence they had to receive from them a speedy and a certain help? One might at the same time likewise perceive the Generosity of others extraordinarily augmented through the Confidence they had in their safe hands. Let us therefore treat no longer of that, of which none are ignorant; but rather make some few reflections on your Charity (which renders you every-where so famous) in assisting *gratis* with your sage and prudent Counsels an infinity of Sick, who meet from all parts at *St. Come*, the first *Monday* of every Month in the year, to consult with you upon many Diseases, to all others (except you) incurable; despairing ever to obtain a cure for their Maladies, if it do not descend from your famous Magazine. This Charity also plainly appears in the Instruction you bestow *gratis* upon all Students in Chirurgery, appointing some from amongst you

Dedicatory.

you, to make them Demonstrations in Anatomy, and teach them the true Method how well to perform all the Operations of Chirurgery, of which Commission I have had the honour to acquit my self, as well as it was possible for me, during three years, in pursuance of the Order you gave me to that purpose: But (since in those Exercises, so ordered by you, we do not usually discourse of Women with Child, nor of their different Labours) I have thought, that, to discharge my self intirely of my duty, you will not judge amiss, my publishing this Book to the world, which I present you; in which I endeavour to demonstrate exactly the means of remedying many Indispositions of Women with Child and in Childbed, with an exact Method of well-practising the Art of Midwifery, being perswaded that it may be very profitable to many young Chirurgeons, who live in the Country, where but very few sufficiently instructed in all things necessary to be known, can be met with; I have also the rather undertaken this, that the Midwives may finde in it that which they ought to know, to enable them the better to exercise their Art, and under-

The Authors Epistle

go the Examination, which at present they are obliged to before you for their Reception: I hope likewise (Gentlemen) you will have the goodness to excuse it, though it hath not so fair a form as the matter requires, and though I do not express the contents so perfectly as you conceive them; for I have (I confess with a little too much confidence) undertaken to open divers secrets of Nature, which (being very abstruse, and as difficult to be comprehended) create yet incomparably more trouble to explain them significantly, to be well understood: notwithstanding, as it is often seen, that a dark body reflects the light which it receives; so likewise I hope, that this small Work may (by the reflection of the Sun of your Doctrine, of which I have received many rayes) enlighten the young Chirurgeons and Midwives in the difficulties which they often meet with at Labours.

Accept then (Gentlemen) this small Production of one of your Children, who conjures you, by the love of Fathers, (that never disown their Children, how deformed soever) to defend it against En-

Dedictory.

by and Detraction, which will never dare
to attack it, when you have vouch-
safed it your Protection; which is the
Favour desired from you by

(Gentlemen)

Your very affectionate Brother,
and Companion,

Francis Mauriceau.

*The Approbation of the four Sworn Pro-
vosts and Wardens of the Master
Chirurgeons of Paris.*

VVE under-written, Sworn Pro-
vosts and Wardens of the Ma-
ster-Chirurgeons of the City of *Paris*, do
certifie that we have seen and examined a
Book, composed by *FRANCIS MAU-
RICEAU*, Sworn Master-Chirurgeon of
Paris, intituled, *The Diseases of Women
with Child, and in Child-bed; With a true
Method of assisting them in their natural La-
bours; and the means of remedying all those
contrary to Nature; and the Diseases of In-
fants new-born: Likewise an exact Descrip-
tion of all the Parts of a Woman destin'd to
generation; together with many Figures sui-
table to the subject.* Which Book We e-
steem very profitable for the Publick, and
necessary for young Chirurgeons, and all
Midwives, to learn perfectly the practice
of the Art of Deliveries: in confirmation
of which we have signed this present Cer-
tificate. *Paris* the 15th of March, 1668.

Le Filastre.

Vivien.


L' Escot.

L' Eaulie.

An Extract of the Kings Priviledge.

BY the Grace and Priviledge of the King, given at *St. Germans* the 10th day of *June* 1668. signed *Le Gros*, it is granted to *Francis Mauriceau*, sworn Master-Chirurgeon of *Paris*, to print, sell and distribute, by such Printers and Booksellers as he shall think good, a Book, composed by him, entituled, *The Diseases of Women with Child, and in Childbed, &c.* With express Injunction and Prohibition to all persons of what quality or condition soever, not to print the said Book; nor to sell, nor vend any other Impression than this which the said *Mauriceau* hath caused to be made, or such as he hath authorized; nor likewise, to copy or counterfeit any of the Figures of the said Book for the space of Ten years, commencing from the time that the Impression shall be compleated, Upon pain of Confiscation of the Counterfeit Copies, and of 300 l. and reimbursing all charges and damages whatsoever, as it is more amply recited in the said Priviledge, of which this present Extract shall serve for sufficient notice.

The



The Author to the Reader.

Friendly Reader,

SINCE in the Age we live in, we see, that most people are govern'd rather by *Opinion* than *Judgment*, I desire, that, if you mean to profit by reading my Book, you will reade and examine it without any *critical Envy*, and free from all sort of *preoccupation*, which may obscure your Judgment, and hinder you from acknowledging the Truth of those Things I pretend to teach. Therefore be not of their humour who *condemn a Conception* when they *understand it not* ; and believe it *false*, because 'tis *new* ; neither imitate such, who seeking alone to carp at *words*, neglect the *sense* of the Discourse : For, even as it happens very often, that *Purging* , though proper for a Disease, doth no good to a Patient, when his Body is not well prepared, and disposed for its Operation : so the *Doctrine* of
Books

The Author to the Reader.

Books, which is one of the most wholesome effectual Remedies we have to chase away ignorance, is wholly useless to mens wits, if they are not disposed to receive it. I believe I may hope you will easily grant me this request, because it is for your advantage: In the mean time, though I design to instruct you here in whatsoever concerns *Women with Child, or in Labour*, yet I would not divert you from reading of many learned Authors who have treated of it, but only advise you that the most part of them, having never practised the Art they undertake to teach, resemble (in my opinion) those *Geographers*, who give us the description of many Countries which they never saw, and (as they imagine) a perfect account of them; which makes it very difficult (not to say impossible) they should ever obtain their end: For it is certain (as *Plutarch* hath very well noted) that the *speculative* part of Arts is unprofitable, and unfruitful, when destitute of the practice. You may then, as to this subject, relye on the Method I show you; since, to conduct you in it, I faithfully recite what I have with very happy success

The Author

cess observed these many years in the
practice of Deliveries.

Furthermore, blame me not for being
of a Judgement different from the com-
mon opinion of many; for I declare I
have only bound my self to acquaint you
with the truth, of which; I hope, you will
have more Satisfaction, and be better
pleased, than if I had always blindly fol-
lowed the thoughts of others; having
likewise endeavoured, not to extend my
self in superfluous discourse, to the end I
might be more intelligible to yong *Chirur-
geons*, and *Midwives*; to whom this Book
(if I be not mistaken) will be as usefull as
any, to teach them the safe practice of
the Art of Deliveries. I have not stult
it with a great number of long Receipts,
which serve only to swell a Volumn, and
confound their Wits in the uncertainty
of the choice of so many different Reme-
dies, composed of Drugs which very of-
ten are unknown to them; but singly
contented my self to teach them the best,
and principally such as we ordinarily use
in our practice. But if in all this you
find some of my Opinions not wholly Sa-
tisfactory, or that others (according to
your

to the Reader.

your Opinion) are not fully agreeing
with the Truth; remember, that as amidst
the best Corn, there alwayes spring Tares,
or some other Weeds; so in like manner
you meet with few Books, whose doctrine
is so pure, as not to find something in
them to reject: and if I may hope for any
respect from you in recompence of my
pains, it will be but proportionable to
what you may have for many others, who
never had, in this occasion, a greater desire
than my self to render you service.

F. M.

The



The Translator to the Reader.

Courteous Reader,

Having long observed the great want of necessary directions how to govern Women with Child and in Childbed, and also how newborn Babes should be well ordered, I designed a small Manual to that purpose; but meeting some time after in France with this Treatise of Mauriceau, (which, in my opinion, far exceeds all former Authors, especially Culpeper, Sharp, Speculum Matricis, Sermon, &c. being less erroneous, and enriched with divers new Observations) I changed my resolution into that of translating him; whom I used not much commendation, because he is fortified with the approbation of the Wardens of the Chirurgeons Company of Paris.

His Anatomy, at the beginning of the Book, I have omitted, there being already severall in English; as also here and there a passage that might offend a chaste English Eye; and being not absolutely necessary to our purpose: the rest I have, as carefully as I could, rendered into English for the benefit of our Midwives; some of whom may yet very well admit of an additional Knowledge. The principal thing worthy their observation in this Book, is, accurately to discover what is properly their work, and, when it is necessary to send for advice and assistance, that so, many Women and Children may be preserved, that now perish for want

The Translators Epistle.

want of seasonable help. My Author marks out the breaking of the right Waters, for the proper season of a naturall Delivery, and (when ever a Child is not born then, or soon after) Nature is so much short of performing her office. This is certainly a great truth; and all wrong births should never be longer delayed; and for the most part Floodings and Convulsions not so long, lest the Woman lose her life before ever the Water breaks: but if no dangerous Accident intervene, in a right labour, one may lengthen out their expectation to 12 hours after; and, though some may have been happily delivered 24 hours, or two dayes after, yet should I not advise any to run that hazard; provided they can have an expert Physician to deliver them, without destroying the Child; because many have perished in that case; and it is not prudent to venture, where but one of many escapes: for the longer the Labour continues after the Waters are broke, the weaker both Woman and Child grow, and the drier her bodie, which renders the birth the more difficult; and 'tis ever good taking time by the foretop.

And that Midwives skill is certainly the greatest, and she deserves most commendation, who can soonest discover the success of the Labour, and accordingly either wait with patience, or timely send for advice and help. Nor can it be so great a discredit to a Midwife (let some of them imagine what they please) to have a Woman or Child saved by a Man's assistance, as to suffer either to die under her own hand, although delivered: for, that Midwife mistakes her office, that thinks she hath performed it, if she do but lay the Woman; because her principal duty is to take care that she and her Child be well, with safety and convenient speed parted; and, if this be impossible for her, and

feasible

12 h
24

Child

escape

fore top

B

safe
well

The Translator

feasible by another; it will justify her more to move her
imaginary Reputation, and to send for help to save the
Woman and Child, than to let any perish, when possibly
to be prevented; As in the case of my Author's Sister
in the 20th Chapter of his first Book. Yet, in Coun-
tries and places, where help and good advice is not sea-
sonably to be had, Midwives are compelled to do their
best, as God shall enable them; which dangerous and
uncertain tryals would not become them to put in
practice upon Women, where no timely assistance need be
wanting. Most wrong Births, with or without pain;
all Floodings with Clots, though little or no pain, whe-
ther at full time, or not: all Convulsions; and many
first Labours; and some others, though the Child be
right, if little or no pain, after the breaking of the
Waters, and the Child's not following them in some six
or ten houres after, requires the good advice of, and,
peradventure speedy delivery by those Physicians that
are expert in this practice: for, though some few
may escape in these cases, yet far the greater number
would perish, if not aided by them. And let me
therefore advise good Women, not to be too ready to
blame those Midwives skill, who are not backward in
dangerous cases to desire advice; lest it cost them dear
by discouraging them, and forcing them to presume
beyond their knowledge, or strength especially, there
being already but too-too-many over confident.

Those few things wherein I dissent from my Author,
if of dangerous consequence, I note in the Margent; if
not, I passe it by, leaving it to the election of the
Reader.

I must confess he is in many places too prolix; a
fault that many of the French affect; however, I
chose rather to translate him according to his own stile,
than

Sister

20

first book

or 10

pages

Sister

now the

stor

to the Reader.

than contract him; and also to leave unaltered some things not very well expressed, being of no great moment. I find also that he doth not distinguish between the words Plaster and Ointment, but useth them promiscuously one for the other. y last ointment

In the 17 Chap. of the second Book, my Author justifies the fastning Hooks in the head of a Child in a difficult Labour, where it comes right; which I confesse hath been and is the practice of the most expert Artists in Midwifry, not onely in England, but throughout Europe; and hath very much caused the report, that where a man comes, one or both must necessarily dye; and makes many for that reason forbear sending, untill either be dead or dying. But I can by no means approve of that practice, or those delates; because my Father, Brothers, and my Self, [though none else in Europe that I know] have by Gods blessing, and our industry, attained to, and long practised a way to deliver a Women in this case without any prejudice to her or her Infant; though all others, (being reduced, for want of such an expedient, to imploy the common way) do, and must endanger, if not destroy one or both, by the use of these Crochets. By this manuell operation we can also both shorten the time, and lessen the number of pains in a right Labour, (if there be the least difficulty) without danger, and with advantage to both Woman and Child. If therefore the use of Hooks by Physicians and Chirurgeons, be condemned (without thereto necessitated through some monstrous birth) we can much lesse approve of a Midwives using them, as some here in England boast they do; which rash presumption, in France would call them in question for their lives. n way, deliver with out

The Translator

The 1st book
In the 15th Chapter of this Book my Author pro-
poseth the conveying sharp Instruments into the womb,
to extract a head; which is a dangerous operation,
and may be much better done by our fore-mentioned
Art, as also the inconvenience and hazard of a Child
dying thereby prevented, which he supposeth in the
27th of 2^d Book.

The 2^d book

I will now take leave to offer an Apology for not
publishing the secret I mention we have to extract
Children without books, where other Artists use them,
which is, that there being my Father and two Bre-
thers living, that practise this Art, I cannot esteem
it my own to dispose of, nor publish it without injury to
them; and think I have not been unservicable to my
Country, although I do but inform them that the fore-
mentioned three persons of our family and my self, can
serve them in these extremities with greater safety
than others.

The Reader also may please to know that some ex-
planations in the Margent, as lovingly, p. 6. and
untimely, & unseasonably, p. 22. with some others,
were never intended to have been inserted, but left for
the Printer to make choice of the most familiar of
them, which (he mistaking) was, to prevent further
trouble, suffered to be so printed.

I do not intend this work to encourage any to pra-
ctise by it, who were not bred up to it; for it will hardly
make a Midwife, though it may easily mend a bad
one. Yet notwithstanding I do recommend it to the
perusal of all such women as are careful of their own
and

to the Reader.

and their friends safeties, there being many things in it worthy their noting: And designing it chiefly for the female sex, I have not troubled myself to oppose or comment upon any Physical or Philosophical Position my Author proposeth. I hope no good Midwives will blame me or my Author for reprehending the fault of bad ones, who are only aimed at, and admonished in this work; and I am confident none but the guilty will be concerned, and take it to themselves, which I desire they may, and amend.

Farewell,

Hugh Chamberlen.

From my House in Prujeans-
Court in the Old-Baily,
London, this 15th of
May, 1672.

ERRATA.

ERRATA.

PAge 8. line 8. for *Intestin*, read *Intestinum*. Pag. 13.
 line 1. r. *fact*, read *fact*. P. 19. l. 3. f. *upper parts*, r. *Nipples*.
 line 1. *Womb* is free. P. 58. l. 1. r. *that miscarried*.
 P. 63. l. 24. r. *Hypogaster*. P. 95. l. 9. r. *Corrobratives*.
 P. 96. l. 4. r. *a Wafer will be very fit*. P. 101. l. 18. f. *10th*.
 r. *10th*. P. 132. l. 11. the *Comma* behind together, must be
 before it. P. 133. l. 15. f. *the*, read l. 18. f. *which is yet*
does, r. *or it also doth*. P. 212. l. 1. f. *capable*, r. *able*. P.
 224. l. 24. f. *marked D. T. C.* and the same in pag. 236. l. 9.
 P. 287. l. 1. f. *an*, r. *a*. P. 301. l. 3. f. *drannes*, r. *meales*.
 P. 430. r. *CHAP. XXXVI. l. 24. r. requisite.*

Books newly printed.

Artoria Chymica or, A rational way of prepa-
 ring Animals, Vegetables and Minerals for a Phy-
 sical use, &c. *Autore* Edw. Bolnes, *Med. R. Ord.*

A *Philosophical Essay*; Declaring the probable
 Causes whence Stones are produced, in the greater
 World; as also the Causes and Cure of the Stone
 in the Kidnies and Bladders of Men, &c. By Dr.
Thomas Shirley, Physician in Ordinary to his Ma-
 jesty. Sold by *W. Cadman*, at the Popes-head in
 the lower Walk of the New-Exchange.

Praxis Medicorum Antiqua & Nova: The An-
 tient and Modern Practice of Physick examined,
 stated and compared. By *E. Manwaringe*, Dr. in
 Physick. Sold by *Tho. Archer* Bookseller, under
St. Dunstons Church in Fleetstreet.

The



The First Book.

*Of the Diseases, and different Dispositions of
Women with Child, from the time of Con-
ception to the full time of Reckoning.*



Any Indispositions may arrive to Women from the time of Conception to the full term of Labour, because they are then not only subject to those which are caused by pregnancy, but to those also which happen at other times.

It is not my design so to enlarge as to examine all, but onely to enquire into the principal and most usual Maladies that accompany Great-Bellies, and have, during their course, some particular Indications for their Cure; for as for those which have only general Indications, and may happen indifferently to a Woman at any time, they may easily be known and redressed by the ordinary means, provided that you have all the while regard to the disposition of the Great-Belly.

It would be sufficient to my purpose, of a through examination (in pursuance of my intention) of every circumstance of a Great-Belly, to begin with

A

the

the explication of a Conception, which must precede it: but, since that cannot happen but to a fruitfull Woman, I will, before I discourse of it, that you may the better understand it from its original, give you some considerable Observations concerning the Fruitfulness and Barrenness of Women; for Barrenness proceeds oftner from Women than Men: for there are many conditions required in a Woman, which Men have no occasion of, who only need to provide a small quantity of their Seed, and that at once, to generate; but Women, besides their Seed, must have a fit place to receive both, as the Womb is when well disposed; and matter appointed for the Child's nourishment, during its whole stay there, as is the menstruous blood: This is the cause, that for one impotent Man, there may be above thirty barren Women found. Let us therefore first of all see what are the signs of Fruitfulness and Barrenness in Women.

CHAP. I.

Of the signs of Fertility and Sterility in Women.

BY the *Fertility* of a Woman, I understand a natural disposition of her Body, by means of which, with the assistance of a Man, she may engender her like: And by *Sterility*, which is directly contrary, I intend an * *Impotency*. *Incapacity*. which proceeds from some vice or fault either of her whole body, or of some particular part. We must now make

of Women With Child. 3

make some enquiries after the most notable signs of the one and the other, and chiefly of those which may be perceived by our sight or touch, by which we may better judge than by many others, that for the most part are uncertain : For those which are taken from different temperaments, may easily deceive us, forasmuch as we may often find Women of a very ill habit, and full of ill humours, notwithstanding fruitful.

First, therefore, we affirm the Womb to be a part absolutely necessary to fertility, and the principal object to be represented and examined to make a judgment of it : but as we find not every Ground proper to yeeld Fruit, and that some are so ungrateful as to produce nothing ; so likewise it is not enough, for a Woman to have a Womb to be capable of Conception, since we find divers that have them, barren.

We have already ^{*In his Anatomy not yet printed} shewed you exactly what the composition and natural structure of it ought to be, for to serve to so admirable an end as generation: Wherefore we will now speak no further of that, but refer you to that place to be informed.

You must know then in general that the signs of fecundity in a Women are, that her Womb be well disposed, that she be at least thirteen or fourteen years of age, and at most but 45 or 50 generally and for the most part (though some, yet very rarely, conceive sooner or later according to their different natures and dispositions) that they be of a good temperament and indifferently sanguine, that they have their Courses in due time, of good blood and laudable in colour, quantity, quality, and consistence, and regularly every month, at once, with-

out interruption, from the time they begin to flow till the time the evacuation is compleated.

We say that the blood ought to be good and laudable, because it is a regurgitation and natural evacuation only of what is superfluous in Women not with Child, and yet of age capable of Conception; which hath no malignity in it self, as many fallly imagine: for in healthful women it hardly differs either in colour, consistence, or quality from that which remains in the vessels, except in the small alteration, which is caused by the heat of the place whence it proceeds, and by the mixture of some humours with which the womb is alwayes plentifully furnisht.

This evacuation (if in order) ought to be every month but once, though some have them every fourtnight, or at the end of three weeks, according as they are more or less sanguine, or cholerick, or have their blood heated: and to continue two or three days together, or six at most, and that by little and little, constant without interruption, and also more or less according to the difference of their particular temperaments. If a Woman have few of them, as when she grows in years, she becomes barren, forasmuch as this blood seems to nourish the Child in the Womb: and likewise if she have too many, because the Woman thereby grows too weak and the Womb too cold. There are notwithstanding some Women who void more of them in two days, than others in eight. They must flow by little and little without interruption, and not all at once; for great and sudden evacuations cause great dissipation of spirits, of which abundance are necessary for generation; and the interruption of these evacuations

of Women With Child. 5

ons shews some impediment in nature, or some vice or evil disposition of the Womb.

If all these signs concur, we may very probably judge the Woman fruitful; I say probably, because there are many who have them all, and yet cannot conceive, though they do their endeavours, and observe thereto all the requisite and necessary circumstances which we shall hereafter mention: There are likewise others, who, notwithstanding they have not all these conditions, are fruitful. Now if all the above named particulars are found in a Woman that is barren, and that you desire to inquire more narrowly, and to be informed more certainly whether she be capable of conception, *Hippocrates* teacheth a way to know it, to which I give little credit, because the reasons of it are very obscure. It is in his 59 *Aphorism* of his 5th Book, where he saith, *Si mulier non concipiat, & scire placeat an sic conceptura, vestibus undique obvolutam subter suffito: ac si odor corpus pervadere videatur, ad naves & os usque, non sua culpa sterilem esse scito.* If a Woman doth not conceive, and you are desirous to know whether she is capable, or no; wrap her close round with clothes, and put a perfume under her; and if she perceive the sent to pass through her body to her nose and mouth, be assured (saith he) it is not her fault she is barren.

Fertility was anciently so esteemed by our forefathers, that they believed Barrenness to be a mark of reprobation; by reason of which the fruitful Servant despised her barren Mistress; as we read in the 16th Chapter of *Genesis*, where mention is made of *Sarai*, *Abraham's* Wife, who, seeing that she could have no Children, and being past the age

of hoping for any, and that her Husband was displeased at it, bid him take her *Ægyptian* Chambermaid, named *Agar*, to lie with him, that by her means she might give him lineage, which good Father *Abraham* quickly did, and had by her afterwards a Son, which was called *Ishmael*: but from the time this Maid had conceived, she began to despise her Mistress *Sarai*, who was as yet barren. The Women of our times are not so earnest to have lineage after this fashion, there being but few that will suffer their Husbands to care for their
 **Lovingly*. Chamber-maids, much less *charitably to excite them to follow this example, which custom is abolished amongst us.

I also admire the great passion which many have, who complain of nothing with greater regret than to die without Children, especially without Sons. For my part, I believe they that descend from *Cæsar*, or the Family of *Bourbons*, may with some reason be led away with this superstitious and common inclination of preserving their kind, and be vexed with these sorts of inquietudes, which no wayes become ordinary people; though excusable, and may be permitted to great Monarchs and illustrious men.

When we perfectly understand the natural dispositions, we may the easier discern those contrary to nature; wherefore the signs of fruitfulness easily teach us those of barrenness. The signs and causes of barrenness proceed either from the age, or evil temperature and vicious conformation of the Womb, and parts depending on it, or the indisposition and intemperature of the whole habit. The evil conformation of the Womb renders Women
 barren,

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barren, when its neck (called the *Vagina*) is so narrow, that it cannot give way to penetration; and when it is wholly or in part closed by some external or internal membrane, (which is very rare, if at all) or by any tumour, callosity, or cicatrice, which may hinder the Woman from the free use of copulation.

But it is not sufficient that the Man's Yard enter the *Vagina*; which is the anti-chamber to the Womb: for, if in the act of copulation, he knocks at the door, which is the internal orifice, and it be not opened, all is to no purpose. This orifice is likewise hindered from opening by some callosity, proceeding from abundance of ill humours, which usually flow down from the Matrix, or by some tumour which may happen to it; or also, by some part, which may so compress it, that it cannot dilate to receive the Seed, as doth the *Epiploon* (or cawl) in fat Women, according to the opinion of *Hippocrates* in his 46th Aphorism of his 5th Book, where he saith, *Qua prater naturam crassa, non concipiunt, iis os uteri ab omento comprimitur, & priusquam extenuentur, non concipiunt.* Women exceeding fat do not conceive, because the Cawl compresseth the orifice of their Womb, neither can they till they grow lean. I do not willingly admit amongst the causes of barrenness, this compression of the inward orifice by the *Epiploon*, forasmuch as *Aritin* hath very well remedied it, by some of the postures invented by him, by which this orifice need not be so compressed in the action.

The most frequent reason why this orifice opens not in this act to receive the Man's Seed, is the insensibility of some Women, who take no pleasure in the venereal act; but when they have an appetite,

the Womb desirous and covetous of the Seed, at that instant opens it self to receive it, and be delighted with it. But though the *Vagina*, or neck of the Womb, and the inward orifice opens to give passage to the Seed; yet may they very often continue barren, if the situation of this orifice be not rightly placed, but either backwards

*Great, or right Gut. towards the **Intestin rectum*, or towards either side; all which hinders the Man from † darting his Seed directly into it, and consequently the Woman from conceiving.

Hippocrates seems to have noted all the signs and causes of barrenness, which usually proceed from the evil temper of the Womb, in his 62 Aphorism of the 5th Book, where he saith, *Qua frigidos & densos habent uteros, non concipiunt, & qua praeumidos habent uteros, non concipiunt: extinguuntur enim in ipsis genitura. Et qua plus aquo siccos & adurentes: Nam alimenti defectu semen corrumpitur. Qua vero ex utrisque nata sunt moderatam temperiem, ea fecunda evadunt.* All such Women whose Womb is cold and close, cannot conceive; nor they who have it too moist: because the Seed is extinguished in it. And likewise such who have it too dry and hot; because, for want of aliment the Seed corrupts: but such as are of a moderate temperament are fruitful. Of all these which *Hippocrates* recites in this Aphorism, the most common, according to my opinion, is the continual Humidity of the Womb, fed by an abundance of the Whites, with which many are very much inconvenienced, the humours of the whole Body being accustomed to steer their course this way, which
can

of Women With Child. 9

can very hardly be turned away when inveterate, and the Womb being imbued with these vicious moistures, becomes inwardly so unctuous and slippery, that the Seed (though viscous and glutinous) cannot cleave to it, nor be retained within it, which is the cause that it slips immediatly away, or in some short time after it is received.

Barrenness may also proceed from the whole habit of the Body, as when a Woman is too old, or too young: for the Seed of the young is not yet prolifick, neither have they the menstruous blood; which two things are requisit to fruitfulness: and that of the aged is in too small a quantity, and too cold, who likewise want the menstruous blood.

An universal intemperature (though the Woman be of convenient years) renders them however barren, as it happens when they are hestick, hydro-pick, feaverish and sickly, and especially so much the more as the noble parts are fallen from their temperament and natural constitution: There are however many Women which seem barren for a long time, because of some of the fore-mentioned Reasons, yea, till they are thirty five or forty years old, and sometimes longer; who yet at last conceive, being cured of the indispositions which hindred them, and having changed their temperament by their age, of which we have had a remarkable example in the person of Queen-mother, lately deceased, who was above two and twenty years married, and without Children, and yet afterwards, to the great joy and content of all *France*, she had our invincible Monarch *Lewis* the 14th, now reigning, to whom God grant a long and happy life.

Some

Some of these Barrennesses may sometimes be cured by removing their causes, and procuring the dispositions we have said are necessary to fruitfulness; yea, of those which proceed from an universal intemperament, by reducing the Body with a good and convenient regimen to a good order, and this according to their respective indispositions. Wherefore if a Woman have naturally the *Vagina* too narrow, and not from some of the causes above-mentioned, she ought to be joyned to a Man whose Member is proportionable, if possible: and if that will not do, (which happens very seldom) she must endeavour to relax it and dilate it with emolient Oyls and Oyntments; if the neck of the Womb be compressed by any humour, it must be resolved and suppurated according to its nature and scituation, having alwayes care to prevent the corruption of these parts, which being hot and moist, are very subject to it; because the womb serves as a sink by which all the ill humours of the body are purged; so that you must take great care, that these kind of Tumours turn not to a Cancer, which is a very mischievous malady, and causeth the poor Women miserably to languish which are afflicted with it, and which after many insupportable pains, brings them almost alwayes to an inevitable death.

When the *Vagina* is not clear in its capacity, because of any scar after a rent, caused by some force or violence to the Woman, or of some hard labour, or after an ulcer which caused the two sides to be agglutinated, whether inwardly or outwardly, it

*A kind of large
Incision-knife.

must be separated the best that may be with a * *Bistory*, or some other Instrument, according as the

of Women With Child. II

the case requires, hindring, by interposed Linnen, that it do not again agglutinate.

When a Woman hath no *Vulva*, or outward entry of the Womb pierced, which is very rare, must be opened by making a long Incision.

Fabricius recites the like case in a Girl of thirteen years of age, who was like to die of it, because her Terms could not come down, there being no perforation, wherefore he did the like operation, which succeeded very well, and made her by that means capable of generation. As to the inward orifice of the Womb, if it be displaced either towards the back or sides, it may be in some sort remedied, by making the Woman to observe, in the act of generation, a convenient posture, that the Man's Seed may be ejaculated towards the orifice; and if the Whites, or other Impurities of the Womb cause barrenness, as it is for the most part by the discharge of the whole habit on this place; it must be helped by Evacuations, Purgations, and a regular Diet, according to their different causes, and qualities of these ill humours.

Having thus discovered the most certain signs of Fertility, and the marks of Sterility, I will now (the better to pursue the order I have proposed) treat of Conception.

C H A P. II.

Of Conception, and the conditions necessary for it.

IT is most certain, according to the Rule of Nature, that a Woman is incapable of conceiving, she have not the conditions requisite for fruitfulness we have mentioned them in the foregoing chapter let us now examine in this, what is Conception and how it is caused. Conception is nothing else but an action of the Womb, by which the prolific seeds of the Man and Woman are there received and retained, that an infant may be engendred and formed out of it. There are two sorts of Conceptions: the one true, according to Nature, to which succeeds the generation of the Infant in the Womb: the other false, which we may say is wholly against Nature, and there the seeds change into water, false-conceptions, moles, or any other strange matter.

The qualifications requisite, for a Woman to conceive according to Nature, are, that the Woman receive and retain in her Womb the Mans and her own prolific seed, without which it cannot come to pass; for it is necessary that both seeds should be there; nor is it at all true, what *Aristotle* and some other of his followers affirm, that the Woman neither hath nor can yeeld any seed, a great absurdity to believe: for the contrary may easily be discovered, by seeing the Spermatick Vessels and Testicles of a fruitful Woman, appointed for this use, which are wholly filled with this seed, which

in

of Women With Child. 13

coition they discharge as well as Men. Such a will not open their eyes to behold a verity so clear, they make reflection on the resemblance of Infants to their Mother, which could not be unless her seed had been more prædominant than the Fathers, when they begot them; which likewise happens after the same manner when the Fathers hath more force and virtue. Which may evince, that the Womens seed contributes as well to the formation of the Infant as the Fathers. If they will not agree to a thing so common, let them make another reflection on the generation of certain Animals, which participate of the nature of the Male and Female (of which they are engendred) though of different kind; as we daily see Asses and Mares produce by their coupling Mules, which are Animals of a middle nature resembling both the one and the other, that produced them. We may then learn by this, that both Seeds are necessary for a true Conception, provided they be prolifick, that is, containing in them the Idea of all the parts of the body, and then the Womb being greedy of it, delights it self in it, and easily retains it when received, else it soon afterwards rejects it.

It is not absolutely necessary, that both the Seeds be received and retained intire, without the loss of some part; for, provided there be a moderate quantity of it, 'tis sufficient: Nor must we imagin, that (though all of it be not received into the Womb) the Child, formed out of it, will want some limb, as an arm, a leg, or other member, for want of sufficient matter: inasmuch as the forming faculty is whole in every part of the Seed, of which the least drop contains in it potentially the idea and form of all

all the parts, as we have lately made appear: but indeed when the Seeds are received but in small quantity, the Child may be the less & weaker for it. Or if either or both of them have not the requisite qualities; or, though well enough conditioned, the Womb be imbued and stuf with ill humour, as the menstres, whites, and other filth, or any other fault; if then there be a conception, it will be contrary to Nature, and there will be ingendred false births, Moles, or dropfies of the Womb, mixed with some other strange bodies, which are very troublesome to Women, till they void them.

It is therefore without cause, that many Women are blamed, when their children are born with red and livid spots, which very much disfigure the face of some of them: It is usually said (but without reason) that this proceeds from the mothers longing to drink Wine; for, though some have, by chance been in effect harrassed (as they affirm) with their passionate desires during their being with child, yet we must not superstitiously believe (as many do) that these spots are so caused, but rather from some other cause, which must be searcht for elsewhere. And that which makes it appear, it cannot proceed from hence, is, that almost throughout all *Italy*, where nothing but white wine is drunk, as also in *Anjou* in *France*, I have seen divers persons marked with these red spots: and in case it proceeded from their Mothers longing to drink Wine, they ought to be white spots, or of an Amber colour, being the colour of the wine of these Countries: but we ought rather to conclude that they are caused, from some extravasated blood, at the time the Infant is formed; which marks the skin, yet very tender with these spots,

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spots, and colours it in whatsoever part it toucheth, much after the same manner as we see it marked with Gunpowder, or some waters producing the like effect when it is washt and bathed with them. I will not however deny that the imagination hath a power to imprint on the body of the Infant, marks of this nature; but that can only be when young with Child, and principally at the very moment of conception; for when the Child is compleatly formed, the imagination can in no wise change its first figure, and Women must wean themselves from these vain apprehensions, which they say they have to such things (every moment) and serves some of them for a pretext to cover their liquorishness.

Since my discourse is fallen upon this subject of Marks, with which oft times the bodies of Infants are spotted in their birth, and which comes, as is ordinarily believed, from the imagination of their Mother, it seems to me not much from my purpose, to recite you a circumstance very particular found on Me, when I came into the world, as my Father and Mother have often told me, which is, that my Mother being with Child of me, and almost at the end of her reckoning, as it appear'd afterwards, the eldest of her three Sons (which she then had of six years old, and her first-born, whom she loved with an extraordinary tenderness and passion) dyed in seven dayes of the small Pox, all which time she continued night and day by his bed side tending him in all his necessities, not suffering any other to do it, whatsoever desires were made to her, not to weary and trouble her self, as she did, for the Childs sickness, alledging that in her present condition, she ought to be careful of her self, and not be the cause
of

of death to the Infant she went with; in fine, at the end of seven dayes her Son dyed, upon which the next day she was delivered of me, who brought effectively into the world with me six or seven of the small Pox. Now it is certain, that it would be irrational to say, that I had then contracted these small Pox in my Mothers Womb, by her strong imagination: But if I were asked whence they proceeded? I should answer, that the contagious air she breathed without discontinuance, during the whole sickness of her deceased Son, had so infected the mass of her blood, with which at that time I was nourished, that I, rather than she, easily received the impression of this contagion, because of the tenderness of my body. Let us therefore assert, that the imagination cannot produce any of the above mentioned effects, but at the moment of conception, or within few dayes after, and that we ought for the most part to search elsewhere (if we desire the truth of it) the cause of most of these Spots, Marks, and Signes with which many Infants are born.

CHAP. III

Of the Signs of Conception.

A Sit is very hard and belonging only to expert Gardeners to know Plants as soon as they begin to spring forth of the Earth; so likewise there are none but expert *Chirurgeons can give a Woman certain assurance of Conception from its beginning: although some of these signs, resembling those of the suppression of the Terms and other maladies in Women, cause many to be deceived in it.

**Chirurgeons
only practise
Midwifery in
France.*

I will not trouble my self to make a recital of a great number of signs of conception, which rather tend to superstition, than an effective verity: but only the most essential and ordinary, by which a Chirurgeon may be assured of it; of which some may presently be perceived, others not till afterwards. He shall first examine and inform himself, whether the Woman hath all or most part of the signs of fertility, which are already named in the discourse of them, if not, he must impute them to some other cause; and supposing she be fruitful, you may then know whether she have conceived, by their agreement, and more then ordinary delight in the act.

It is not enough for a Woman to be certain she hath conceived, and to yeeld and receive her seed with the Mans into her Womb, unless it close at that instant, and retain it. There is an Article amongst the customs of *Paris*, in which it is said,

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that

that to give and keep is not good: but it is not so in Conception; for a Woman gives and casts her Seed into her Womb, and there retains it. She may know whether she retains the Seeds, if she perceives nothing flow down from the Womb after Copulation: The Woman some few months after perceives also some small pain about her Navel, and some little commotions in the bottom of her Belly, caused by the Womb's closing it self to retain the Seeds, and contracting it self so as to leave no empty space, the better to contain them, and embrace them the closer. The light pain of the Navel comes from the Bladder of the Urine (from the bottom of which proceeds the *Utraculus*, which is fastened to the Navel) which is a little agitated by that contraction and kind of motion that happens to the Womb, when it is closed to retain the Seeds, and from the like agitation comes also those little commotions of the Belly.

These are the signs of Conceptions, which may be known at the moment they happen, and may be yet more certainly known if you perceive the inward Orifice exactly close. Besides these signs, there are others which cannot be known till some time after, as when the Woman begins to have loathings, having no other Distemper, loseth her appetite to meats which she did love: longs to eat strange things, to which she was not accustomed, which happens according to the quality of the humours predominating in her, and with which her stomach abounds: She hath often nauseatings and vomitings, which continue a long time: the Fearins stopping, no other cause appearing, having alwayes before been in good order: her Breasts

swell,

swell, wax hard, and cause pain, from the flowing of the blood and humours to them, wanting their ordinary evacuation, their upper parts are firmer and larger, because of the repletion; the Navel starts: her Nipples are very obscure or dark coloured, with a yellowish livid circle round about: her Eyes are dejected and hollow, the whites of them dull and troubled: her blood, when she hath conceived some time, is alwayes bad, because the superfluities of it not being then purged, as accustomed, is altered and corrupted by their mixture. Moreover, there is a sign, which all the Women esteem and hold in this doubtful case for very certain, which is, *en ventre plat enfant y a*, in a flat Belly there is a Child. Indeed there is rime in this proverb, and something of reason, but not as they imagin, that the Womb closing it self after Conception draws in a manner the Belly Inwards and flattens it, which cannot be; because the Womb free and wavering, not fastened forwards to the Belly, whereby to draw it back after that manner; but it may possibly be by reason that Women grow lean by the indispositions of their pregnancy, and wax thinner and smaller, not only in their Belly, but also throughout their whole body, as may be known the two first months of their pregnancy, during which time that which is contained in the Womb, is yet very small; but when the Womans blood begins to flow to it in abundance, then the Belly waxeth daily bigger and bigger afterwards, until her reckoning be out.

All these signs concurring in a Woman who hath used copulation, or the most part of them together and successively, according to their seasons;

we may pass our judgment, that she hath conceived, notwithstanding that many of them may happen upon the suppression of the Terms, which usually produce the like: for every one knows, that it causeth also in Virgins, disgusts, nauseatings and vomitings, but not so frequently; the swelling, hardness, and pains of the breasts, as also extravagant appetites, a livid colour of the Eyes, and others, to which you must have regard. The Matrix may be yet exactly close, and the Woman not conceived: Yea there are some, in whom they almost never open, unless very little to give passage to the Terms; which happens to some naturally, to others by accident, as by some callosity proceeding from an Ulcer, or other malady.

If all these signs of Conception (which sometimes may deceive us, though rarely, if they concur together) do not give us a sufficient assurance of it, and that we desire a better, *Hippocrates* teacheth us a way to know it, which I believe to be no more certain than the rest: it is in his 42^d Aphorism of his 5th Book; where he speaks in this sort, *Sic ut si nascere, an conceperit mulier, dormitura, aquam nullam potius data: & si ventris tormina patiatur, concepit; sin non, non concepit*: If you desire to know whether a Woman hath conceived or no, give her, going to rest, a draught of Metheglin; and if afterwards she feels pains in her Belly, caused by wind she hath conceived; if none, she hath not, as he saith. Which is grounded (as I believe) upon the supposition that Metheglin breeds wind, which cannot pass easily downwards, because the Womb (being full) compresseth with its greatness

of Women With Child. 21

the * *Intestin rectum*, on which it is situated, and causeth those winds to rumble, which are constrained to recoyl back into the other Intestines. * *The great Gut.*

If there be any occasion where Physicians or Chirurgeons ought to be more prudent, and to make more reflections upon their Prognosticks for an affair so important as this is, it is in this which concerns their Judgments as to conception and Womens being with child, to avoid the great accidents and misfortunes, which they cause who are too precipitate in it without a certain knowledge. The faults which are committed through too much fear at such a time, are in some sort excusable and to be pardoned; but not those caused by temerity, which are incomparably greater. There are but too many poor Women who have been caused to miscarry by Medicines and bleeding, not beleiving they were with Child, which are so many murders they are guilty of who caused it, either through ignorance or rashness: besides the death which they bring to those little innocent creatures, by destroying them in their Mothers belly, they often thereby put the Mothers into great danger. We have lately had in *Paris*, in the year 1666, a miserable example of this kind, in a Woman hanged, and afterwards publicly dissected, near the Kitchen-Court of the *Louvre*, who was found four months gone with Child, notwithstanding the report of such persons as had visited her by the Judges Order before her Execution, who assumed, contrary to the Truth, that she was not with Child. That which deceived them was, the Woman's having effectually her Courses, though with Child. Where-

fore 'tis not good to be too confident, forasmuch as there are many with Child who have their Courses; and I have known some who have had them all the time of their Great-Belly till the fifth or sixth month, which happens according to the Womans being more or less sanguine; though the greatest number usually have them not: but there are very few general rules, which may not sometimes be excepted against.

This accident made such a noise in *Paris*, that it quickly came to the knowledge of the King and all his Court, who very much blamed those persons, that by their ignorance had caused
**Untimely or* the **precipitated Execution* of this
unseasonable. poor unfortunate Creature, with whom perished the Infant, innocent of the Mothers crimes. Nor must the Chirurgeon much trust to what these sort of Women may tell him concerning it; for, being afraid of the punishment of their crime, to delay it, do almost all say they are with child, which is a reason very considerable, why the persons, to whom such matters are committed, should be very knowing. There are yet another sort of Women, who having been ill treated, send for the Chirurgeon that he may give them a Certificate, the better to be revenged on their adversary; which that they may the easier obtain, they also affirm themselves with child, and having received blowes on their Belly, feign that they find their great pain, and if by chance they have at that time their Courses, they endeavour to perswade that it is a flooding, or shoves, wherefore he must be careful not to be deceived: and yet, that he may not be esteemed ignorant, nor fall into
the

the like disgrace, when there is any cause of doubt, it is better to delay a little, then rashly to pronounce his prognostick at a venture; for as there are Women, who would be thought to be with Child, though they are not; so there are others who will deny it, till they are brought to bed, as in this following example. About the year 1654, being in the City of *Saumur*, there was near my Lodging a young and very handsome Daughter of a Citizen, who was five whole months under a Physician's and Apothecaries hands, to be cured of a Dropsie which she complained of: at length after she had taken many violent Remedies they had ordered her, she was cured in a moment, by bringing forth a Child at its full time, notwithstanding all they had given her; which much astonished the Physician and Apothecary, who were so grossly deceived, in trusting to the Maids relation, who counterfeited the Dropsie so well, that they could never perceive the truth till she was brought to bed.

Some Women themselves are deceived in their being with Child, as lately the Wife of a Counsellour of the Court, who after having been in a course of Physick of six or seven whole months for the Dropsie, under an eminent Physician, was at length brought to bed of a Child.

I knew another Woman, a Merchant of Squared-Timber at *Paris*, who never had a Child, though she so passionately desired it, as to be at the point of hoping for one at 55 years of age, under the colour that she had still her Courses. This Woman was once perswaded (upon the recital of such signs as she said she had) for the space of ten whole months, that she was with Child, of which the Midwife and

many others assured her, and she her self likewise believed it (for it is easie to be perswaded to believe what one hopes for with a strong passion) she had a big-belly, and said also that she felt the Child stir; and believed it so truly, that finding her self one day worse than ordinarily (after having prepared very fine necessaries for the Child she imagined she went with) she sent for the Midwife, who when she was come, assured her it was her Labour: but the next day (having alwayes till then expected a Child) she voided only a quantity of Water, with some Wind from the Womb, and nothing else: after which she was forced to fold up her fine Toilets again which she had provided. By these Examples we may learn not to be too ready to rely upon Womens Relations, if there be no other Reason, which may be known by the Examination of the Signs already declared.

Now since after Conception (of which we have just done speaking) there follows Generation, let us consider what it is, and how it is performed.

C H A P. IV.

What Generation is, and what is necessary to it.

IT is a very great Truth, and generally known, That whatsoever is in this lower World, is subject to corruption, and at length constrained to suffer death: which hath obliged Nature, provident and careful of its preservation, to endue all things with a certain desire of eternizing themselves, which

which not being possible in individuals, because mortal by an indispensable necessity, is therefore done by the propagation of their forms and kinds. She obtains her end, in respect of Animals, by the means of Generation successively reiterated : for so all creatures seem to immortalize themselves, in some sense, by producing their like. And Fathers imagin themselves not quite dead, if they leave their like behind them after their death, to wit, their Children.

By Generation, we understand generally, a progress of that which is, to that which is not. But this definition is a little too ample for to come to the knowledge of what we desire concerning the generation of perfect Animals, and chiefly of Mankind ; wherefore that our intention may be the easier conceived, we must search some other, or rather a description, which may more exactly discover the thing : to this purpose we say that by the generation of Mankind, we mean a proper and particular action of the Womb ; by which working upon both seeds there retained, it forms and shapes a body out of them, composed of divers parts, which it disposeth in order, to become in time the Organ of the Soul, which must be infused into it. There are many things requisit to make the Generation perfect, without which it would be wholly and absolutely impossible : there are usually three principally reckoned, to wit, diversity of sex, their congression, and the mixture of both Seeds, which we will a little particularly examine. Although some define a Woman to be an Animal which can engender in it self, and that this may be true ; yet it is most certain, that she cannot engender without

a Man that hath discharg'd his Seed into her womb And though we daily see Pullets have Eggs, and other Fowl, without the Cocks treading them, yet of those Eggs there will never come Chickens, because the Male never had made an impression on them, nor given them this prolifick vertue, which is absolutely necessary to this purpose. This may convince us that diversity of sex is necessarily requisite, as well to those Animals, as to the more perfect, which is Man.

Diversity of sex would profit little, if copulation did not likewise follow; though some subtle Women, to cloak their shamefulness, would persuade one that they were never touch'd by any Man who could get them with Child, as the of whom *Averroes* speaks, who conceived in a Bath in which a Man had washt himself a little before, and had cast forth his Seed into it, which was drawn and suckt in (as he saith) by the Womb of this Woman: but this is a story fit to amuse little children.

Now to the end these different sexes should be obliged to come to this touch, which we call Copulation, besides the desire of begetting their like, which naturally incites them to it, the parts of Men and Women destined to Generation, are endued with a delightful and mutual itch, to stir them up to the action, without which it would be impossible for a Man (so divine an Animal) born for the contemplation of heavenly things, to joyn himself to a Woman, in regard of the uncleanness of the parts, and of the act. And on the other side; If Women did but think of a thousand pains and inconveniences which their great Bellies cause them, of the pains they endure, and the hazard

of

of their lives when they are in labour, to which may be added the loss of their beauty, which is the most precious gift they have, and which makes them be beloved by those that possess them, certainly it might also afright them from it: But neither the one nor the other make these reflections till after the action (whence comes the saying, *Post coitum omnis animal triste*) considering nothing before but the mutual pleasure they receive by it. It is then from this voluptuous Itch, and the desire of begetting their like, that Nature obligeth both these sexes to this congression.

As to the mixture of both seeds; it is certain that the diversity of sexes and their congression, are but for this end, without which Generation cannot be; though some would have Womens seed serve to no purpose; yea, that they neither have any, nor eject any, as *Aristotle* saith: but we have proved the contrary in the Chapter of Conception, by the example of daily experience, to which you may have recourse, to avoid repetition.

All these three Circumstances, to wit, the diversity of sexes, their congression, and the mixture of their matters, which is called Seeds, must precede Conception, to which succeeds Generation, on this fashion: As soon as the Woman hath conceived, that is, hath received and retained in her Womb the two prolifick seeds, it is every way compressed to imbrace them closely, and is so exactly closed, that the point of a Needle (as saith *Hippocrates*) cannot enter it without violence; after which it reduceth by its heat, from power into action, the several faculties, which are in the seeds it contains, making use of the Spirits with which these

these frothy and boyling seeds abound, and as instruments with which it begins to trace out the first lineaments of all the parts, to which afterwards (making use of the menstruous blood flowing to it) it gives in time growth, and the last perfection.

Generation may be divided into three different seasons, which are, the beginning, middle, and the end. The beginning is, when there is no other matter in the Womb but the two seeds, which continue so to the sixth day, as *Hippocrates* notes; and calls them for that time *the geniture*, as much as to say, from whence generation must proceed: he speaks of it in his Book *De Natura Pueri*: and he saith, that by the experiences he brings of it, one may judge of the other times. He relates a story of a Woman, which at six dayes end cast forth with a noise at once out of her Womb the seeds she had conceived, resembling a raw egg, without a shell, having only the small skin over it; or, to the abortive eggs, which have no shell: which little membrane was on the outside a little coloured with red, and involved in it this seed, which was of a round figure: in the internal part might be seen white and reddish fibres, with a thick humour, in the midst of which was found something like the umbilick vessels. *Hippocrates* calls this first time of generation, *Geniture*, as is already mentioned; during which time neither figure nor distinction can be observed, but only some beginning of a disposition to receive the form of the parts; after which follows the second time, which begins where the first ends, that is, at the sixth day, and lasts to the 30th. The time that the same *Hippocrates* assures us the males are completely

clearly formed, and the females not till the 42^d. After the first six dayes are past, and the Womb hath wrought, according to the fashion we have explained, upon the seeds, which are there yet without any mixture of blood, having disposed them to receive it ; it is brought thither, in some sooner, in some later, according to the Womans being nearer to or further from her time of having her Courtes when she conceived, which produceth effects according to these different dispositions: for if they flow too soon, or in too great abundance, as it befalls such as conceive at the point of having their purgations, the seeds are drowned and corrupted by it, which often causeth a flooding, or at least the generation of a false-conception; but if they are far from their having them, the conception is so much the more stable. Now then, this blood distilling by little and little into the Womb of the Woman, who hath sometime since conceived, serves as a fit matter to form and figure out all the parts of the Infant, which was only traced out by the seed; and yet doth it (according to my opinion) much like a Painter, who after he hath drawn the out-lines with a chaik upon his cloth, begins to lay colour upon colour, to paint by degrees all the parts of the person whose picture he draws. Some little space after the beginning of this second time, appears as it were the figure of those three bubbles, of which *Hippocrates* speaks, or rather three masses of this matter, which grossly represent the three parts called principal, the first of which composeth the Head; the second, in the middle, the Heart; and the other the Liver: there may be likewise seen the after-birth, with the umbilick vessels fastened to it,

and

and the membranes which wrapt up the whole; after which from day to day all the other parts of the body are figured in such sort, that at thirty dayes end the males are compleatly formed, and the females the 42th day ordinarily, which is about the time the *Fetus* begins to be animated, though as yet there is no sensible motion.

Hippocrates seems by these different terms to be of an opinion that the Males have sooner life than the Females; because (he saith) their heat is greater; but for my part I do not beleive that the Male is sooner formed than the Female, and that which thus perswades me, is, because, if it were so, the Male must likewise be at its full term, sooner than the Female, proportionable to the same time, that the one is animated sooner than the other; which wee see the contrary, in that the Women are brought to Bed indifferently both of Sons and Daughters at the ordinary terme of nine months. Let us therefore say, that towards the fifth or sixth week, as well Males as Females have all the parts of their body (though small and very tender) entirely formed and figured, at which time it is not longer than a finger, and from thence afterwards, which is our third time, the blood flowing every day more and more to the Womb (not by Intervals, as the Courses, but continually) it daily grows bigger and stronger to the end of the ninth month, which is the full term of ordinary labour. Having explicated Conception and Generation, let us now consider great Bellies and their differences.

C H A P. V.

Of big Bellies, and their differences; with the signs of the true and false great Bellies.

THE great Belly of a Woman properly taken, is a tumour caused by the Infants situation in the Womb. There are natural great Bellies, which contain a living Child, and these we call true; and others against nature, in which, instead of a Child, is ingendred nothing but strange matter, as Wind mixed with Waters, which are called Dropsies of the Womb, False-Conceptions, Moles, or Membranes full of blood and corrupted seed; for which reason they are called false great Bellies. We have already, where we treated of Conception and Generation, mentioned the causes and signs of a great Belly in its beginning, notwithstanding we will again repeat the most certain and ordinary of them, which are nausea, vomittings, loss of appetite to things the Woman was accustomed to eat and like; longings for strange and naughty things; suppression of the Terms, without Fever or Shiverings, or other cause; pains and swelling of the Breasts: all which may be found in Virgins, by the retention of their Courses: but the most certain is, if putting the finger into the *Vagina*, you perceive the inward Orifice exactly close, as also the distention of the body of the Womb considerable, more or less, according to the time the Woman is gone with Child, and the Childs stir-
ring

ring in the Womb, gives us indubitable proofs of it. It is fit we should be alwayes careful not to be deceived by what we feel stir in the Womb, forasmuch as the Infant of it self hath a total and a partial motion; the total is, when it removes the whole body, and the partial is when it moves but one part at a time, as the Head, Arm, or Leg, the rest of the body lying still: but the Womb blown up in fits of the Mother, yea, and some Moles have by accident a kind of total motion, but never a partial one. That of a Mole is rather a motion of falling down than otherwise, to wit, a motion by which heavy things fall downwards: for a Woman who hath a Mole of any bigness considerable, whatsoever side she turns her self to, her belly falls immediatly the same way, like a heavy bowl. About the time (or very near) when the Infant quickens, if the Woman be certainly with Child, these humors (which are carried to the Breasts by the stoppage of her Courses) are turned to Milk, which when it happens, is usually an assured testimony of pregnancy; though some Women have been found with Milk in their Breasts (but rarely) and yet not with Child, nor ever having had any: which *Hippocrates* also confirms in his 39th Aphorism of his 5th Book, where he saith, *Si mulier que nec pregnant, nec puerpera est, lac habet, ei monstrua defecerunt*. If a Woman hath milk in her Breasts, and is neither with Child, nor ever had any, it comes from the stoppage of her Courses. But it is rather whey than milk, which in that case hath not the consistence as the Milk of a Woman in Childbed, nay the Milk of a Woman with Child is yet but waterish, and becomes neither thick nor
very

very white, till after labour she begins to suckle her Child.

The Infant moves it self manifestly about the fourth month : or sooner or later according as it is more or less strong : some Women feel it from the second, others about the third month, yea some before that time. In the beginning these first motions are very small, and very like to those of a little Sparrow when first hatched, but grow greater, proportionably as the Infant grows bigger and stronger, and at last are so violent, that they force the Womb to discharge its self of its burden, as in Travail. The common opinion is, that the Males quicken before the Females, because their heat is greater, but that is almost equal ; for there are some Women perceive their Daughters, others their Sons soonest, which happens indifferently to Males and Females, according as there was a more or less vigorous disposition at their Generation. Very often Women who daily use Copulation, are subject to be deceived ; for they usually believe they are with Child if their Courses stop, and withal are a little qualmish, which is not always true, for false conceptions cause almost the same accidents as true ; which cannot easily be distinguished but by its consequences. This false great-Belly is, as we have already said, often caused by wind, which blows up and distends the Womb, and which Women oft-times discharge with as much noise as if it came from the Fundament : sometimes 'tis nothing but water which is gathered there in such abundance, as some Women have been seen to void a pail full without any Child ; though they verily believed they were with Child, as did that Wood-Mer-

C

chant,

chant, whose story you have in the end of the third Chapter, who did not void it till the end of the tenth month, till when she alwayes believed herself with Child. There are others who conceive only false-conceptions and Moles, which may be known by the Infants different motions, already mentioned, and by the Moles continuing in the Womb often after the ordinary time of labour, some Women having them a whole year, yea many years, according as these Moles are more or less adhering to the inner parts of the Womb, and are there entertained and nourished by the blood that flows thither.

Moles alwayes proceed from some false-conceptions, which continuing in the Womb, grow there by the blood that flows to them, by the accumulation of which they are by little and little augmented: if the Womb expels it before two months, it's call'd a false-conception, & some are only but as it were the Seed involved in a membrane, like that geniture which that Woman voided after six or seven dayes, of whom *Hippocrates* speaks in his Book, *De natura Pueri*. The others are a little more solid and fleshy, resembling in some sort the Gizard of a Foul, and are greater or less, according to the time they stay in the Womb, and also according to the quantity of blood with which they are alwayes soaked. Women expel these false-conceptions sooner or later, according as they cleave to the Womb, which makes them almost alwayes flood in great quantity at those times.

It is of great importance to distinguish well between a true and a false Belly; for the faults committed by a mistake, are ever very considerable: for-

forasmuch as in a true great Belly the Child ought to continue in the Womb, till Nature * expels it by a natural labour: but contrarily, the false great-Belly indicates to us, to procure the expulsion of what it contains as soon as may be: Wherefore we ought to be very careful.

* This excludes not Art to assist Nature, if not able to perform its duty in due season.

CHAP. VI.

How to know the different times of Pregnancy.

IF prudence be necessary to enable a Chirurgeon or Midwife to assure a Woman that she is with Child, or not, and of a true or a false-conception; it is likewise as much requisite for them to know how far she is gone, to the end they may be certain whether the Infant be yet quick or no, which is of great moment: because, according to the Law, if a big-bellied Woman miscarry by a wound, he that struck her, deserves Death, in case the Child were quick, otherwise he is only condemned in a pecuniary punishment: they ought likewise to take heed lest they cause the death of the Infants, and sometimes of their Mother, by hastening * their labour before its time, by imagining that when the big-bellied Woman complains of great pains in her Back and Belly, they are the

* To be understood by Medicines, as appears by the word [miscarry] following.

pains of her Labour, and instead of endeavouring to hinder them, they contrarily provoke them, and cause them to miscarry unfortunately before their time. I knew a Woman called *Martha Rolst*, who being six months gone with Child or thereabouts, was surprized with great pains, much like throws of Labour, which made her send for her Midwife, who as soon as she was come, and understanding the case no better than they use to do, endeavoured all she could to bring her to bed, augmenting her pains, by sharp Clysters, making her walk about her Chamber, as if she had been at her full time; but finding at two dayes end no forwardness, notwithstanding the continual pains, she sent for me to know what was fit for her to do in that case: I went to the Woman, and found the inward orifice of the Womb dilated enough for the top of my little Finger to enter into its inward part, and yet wider towards the outward part; but considering that she had no other accident but those pains, I caused her immediatly to go to bed, where she continued eight or nine dayes, in which time her pains ceased, the Womb closed exactly, as I found some dayes after, and she went on with her Child three full months longer, and was then brought to bed of a Daughter at the full time, strong and robust, which is yet living, and now five years old or thereabouts. Now had I pursued what they began, this Woman without doubt would have miscarried at six months, which

* *Implies Medicines, as before.*

would have * killed the Infant in her Belly, and soon after she should have miscarried. It is fit to follow

this

this example in the like occasion, provided the pains are not accompanied with accidents, which may endanger the life of the Mother if not presently delivered ; as frequent Convulsions, considerable floodings, of which we shall speak in its place.

To be well informed of the different times of pregnancy, the Womans own relation may sometimes serve turn, yet 'tis not fit alwayes to trust it ; it may help to conjecture, because many Women are themselves deceived, concluding themselves with Child, from the staying of their Courses, or from their quickning, which is not alwayes a certain rule. We usually judge of it by the bigness of the Belly : but more surely by touching the inward orifice of the Womb. When they are young with Child, we can only know it by the signs of conception, because what is then in the Womb is of no considerable bigness to swell a Belly ; but rather on the contrary, at that time it grows flatter, for the reasons before recited : but after the second month the Belly begins by degrees to wax bigger, till the ninth month. At the beginning, in touching the inward orifice, you find it exactly close and somewhat long, resembling the muzzle of a Puppy new pup'd ; and is then very thick : but by little and little, through the extension of the Womb, it diminisheth so in all its proportions, that when the Woman cometh near her reckoning, it is perfectly flat, and almost equal with the globe of the Womb, and in that manner, that it becomes like a small circle, a little thick at its entry, where the Garland is made at the time of Labour.

Neither may the time of pregnancy be alwayes judged by the great swelling of the Belly ; because

some Women are bigger when they are half gone, than others are at their reckoning; it depending much on the bigness of the Infant, and also on their number; and yet again, according as there is more or less water inclosed with them in the Womb; but much rather by the internal Orifice, which grows daily thinner and flatter, and so much the more by how much the Women come nearer their reckoning: much in the same manner as we see a tender skin diminish in thickness, according as it is extended and dilated; even so this orifice grows thinner by the extension which the head of the Infant causeth to it, which usually presseth hard against it in the last months. This remark is often useful to us in the admission of big-bellied Women, that desire to lie in in the * *Hôtel de Dieu* at

* *An Hospital*
so called, in
Paris.

Paris, which I very often observed in my practise there of Deliveries in the year 1660, through the permission which my Lord, the first President, was pleased to give me, (for there is no place so fit to perfect one in a short time, in the practice of so necessary an operation, because of the great number which are there daily delivered of all sorts) the order is, that any Women with Child shall be there charitably received fifteen dayes, or thereabouts, before their reckoning; to which purpose they are searcht before they are admitted, because many, glad of a good entertainment for nothing, present themselves there two or three months before they should, saying and affirming they are near their time; but by the above-mentioned considerations, one may easily judge and know within a very little, who are fit to be received and who not,
that

that is, when they are near their time ; and by this means may likewise know when 'tis necessary to forward Labour, or retard it, as much as ought to be, when Women are not yet gone their full time.

As to what respects the several terms, to which a Woman may go with Child ; there is a great controversie amongst Authors, but all agree that the most ordinary terms are either the seventh or the ninth month, which is known and also approved by all. *Hippocrates* is of an opinion that the Child born in the eight month cannot live, because he cannot support two such puissant endeavours so near one to another, having already endeavoured to be born the seventh month, which is (as he saith) the first legitimate term of Labour ; and failing then, if, reiterating the same endeavours the eighth month, he be born, he is thereby so weakened, that he seldom lives, as he often doth, when born by the first endeavours in the seventh month, his strength not being before exhausted by vain attempts. This seems very likely to many ; but if they that practise Deliveries, make a true reflection on it, they will find, that it is the Matrix alone, assisted with the compression of the muscles of the lower Belly and *Diaphragma*, which cause the expulsion of the Child, being stirred up by it's weight, and not able to be further extended to contain it ; and not, as is ordinarily believed, that the Infant (being no longer able to stay there for want of the nourishment and refreshment) useth his pretended endeavours to come forth thence, and to that purpose kicking strongly, he breaks with his feet the membranes which con-

tain the waters, inasmuch as when the Child is naturally born, the membranes are alwayes rent before the head, which pressing and thrusting each throw the waters before it, causeth them to burst out with force. The same *Hippocrates* likewise admits the tenth month, as also the beginning of the eleventh, at which time he saith the Children live: but he will by no means that Children can live if born before the seventh, forasmuch as they are then too feeble, and not capable to support the external injuries, as indeed we see and find it every day.

I do boldly affirm, and it is also very true, that the ordinary term of going with Child is nine whol months: but I cannot consent that Children born in the seventh month, do oftner live than those of the eighth; but much to the contrary I believe, that the nearer they approach to the natural term of nine months, the stronger they are; and therefore that Children born in the eighth month rather live than those of the seventh: which is wholly contrary to the opinion of many persons, who blindly follow in this the sense of *Hippocrates* and all Authors, without making any reflection upon the thing, for to disabuse themselves of this vulgar belief, founded upon the pretended vain endeavours, which (they say) are made by the Infant in the seventh month: for, as we see, not only in the same Country and Field, but also on the same Vine-Grapes, sometimes six weeks ripe before their ordinary season, and others not till above a month after, which happens according to the Territories, the different regards of the Sun, and according as the Vine is cultivated: So likewise we see Women brought

of Women With Child. 41

brought to bed of their Children six weeks and two months before, and sometimes as long after their ordinary term ; If it be not, that the Womb not being capable of an extention beyond a certain degree, cannot bear its burden, but a little while after the reckoning is out, although there have been Women, as *Hippocrates* acknowledgeth, who have gone ten or eleven whole months with Child, which notwithstanding is so much the more rare, by how much it exceeds its limits. These things happen also to Women according to the different dispositions either of their whole body, or of their Womb alone, or as well according to their rule of living, and the greater or lesser exercise they use, and may likewise happen on the Childs part : for by example, if at seven months he is so big, that the Womb can no longer contain him, nor dilate it self more without bursting, it is then provoked by the pain which this violent extention causeth, to discharge it self of him ; and so likewise in the eighth month, if there be the same reason, and some weeks sooner or later, according to a multitude of other circumstances ; or also by any outward cause, as a violent shaking of the whole body, blow, fall, leap, or any other causes whatsoever, hastening the pains of Delivery ; that which makes these Children live a longer, or a lesser while, is, according as they are at that time more strong and perfect, and the Woman nearer her time, which is at the end of the ninth month.

There are many Women that believed they were brought to bed at the 7th and 8th month ; as likewise others, that they went 10 or 11 whole months with

with Child (which may some times be) when notwithstanding they are effectively delivered at the due time. That which deceives them, usually is, their believing (as we have already said) themselves with Child from the time of the retention of their courses, having had them during the two first months of their pregnancy, yea and sometimes longer; and others also misreckon themselves, when their courses are stopped two months before they conceive. It is also easie to know that a Woman, though well regulated, cannot exactly know by the suppression singly, the certain time of her being with Child: for example, if she lies with her Husband upon the point of the coming down of her terms, and she conceives upon it, then she may make her reckoning from the time of their suppression, which may be very near the truth: but if she conceives immediately after she hath had them (which happens ofteneft) and that all along the whole month she daily copulates with her Husband, at the end of which time her courses not coming down, she may very well reckon her self with Child; yet for all this she cannot know by this sign which night she conceived; and so for three weeks or a month more or less she may be mistaken in the time.

As we have said, that Children are more or less long-lived, according as they approach nearer the ninth month; so we may easily know, that they of six months, and much less those that are younger, cannot be long-lived, because they are yet too weak to resist the outward injuries. There hath often been great contestations amongst the Physicians, to determine, whether a Child born the eleventh or twelfth

twelfth month after its pretended Fathers death, can be legitimately born, and consequently admitted to Inheritance, or rather disinherited as a supposed Child.

This question hath been well debated sometimes by the *Romans* as well as by us, and there have been parties both for and against this opinion; as for my part I will, to avoid prolixity, leave it undecided, and add nothing upon this point to what I have mentioned before.

C H A P. VII.

Whether it may be known that a Woman is with Child of a Boy, or a Girl, and the signs whether she shall have many Children.

IT is no great matter to satisfy the curiosity and disquiet of a Woman, who desires often to know whether she be with Child or no; but there are many, and almost all, that would have one proceed further, and tell them whether it be a Boy or a Girl, which is absolutely impossible; though there is hardly a Midwife which will not boast her self able to resolve it (in effect it is easier to guess, than to find the truth) for when it happens, it is certainly rather by chance, than by any knowledge or reason they could have to enable them to foretell it. But sometimes one is so pressed and importuned to give judgment, chiefly by Women who never had Children, and often by their Husbands, who are not less curious, that one is obliged to satisfy them

them as much as possible in that case, by the examination of some signs very incertain.

There are many signs upon which this knowledge is grounded (if there can be any, which I do not believe) of which the two principal are taken out of *Hippocrates*; the first is in his 42th Aphorism of the fifth book, which is, *Mulier gravida, si marrem gerit, bene colorate est; si vero feminam, male colorata*: A Woman with Child of a Boy is well coloured; but of a Girl, ill coloured. And the other, is in his 48th Aphorism of the same book, which is, *Fetus mares dextra uteri parte, femina sinistra magis gestantur*: For the most part the Male Children lye in the right side, and the Females in the left. Moreover, they say, a Woman with Child of a Boy, is more merry and jockond, goes with it much better, is not so disgusted, finds it quicken sooner, and her right Breasts fill before the left, and is also more firm, and that all the right parts of her body are stronger and more active; as for example, if she late, kneeled, or stood upright, she would make her self first step with her right foot; but if it be a Girl, she would have all the signs contrary to these above mentioned.

There are some persons pretend to know it by inspecting of Urines, which is as uncertain; for we daily find Women well coloured, and they have all the signs of being with Child of a Boy, and yet are brought to bed of Girles, contrary to the hopes given them; And others, though they have signs directly opposit, bring forth Boys. Some believe they understand it better than any other, by considering the time of conception; for say they, if the Woman conceives at the increase of the Moon,

Moon, she shall have a Boy, and contrarily a Girl, if at the decrease : but this falls out as seldom, as may easily be known, by the observation I have made of it at the *Hofel de Dieu* at *Paris*, and may be daily observed by others as well as my self; which is, that having in one and the same day delivered 11 Women there, all at their full time, five of them had Boys, and the other six Girls. Now we may well judge that they all conceived at one time, because all were brought to bed at the same time; and ought (if this rule were true, and that they were all governed by this Planet) to have had either all Boys, or all Girls; and not some Boys, and some Girls, as here it happened, and doth every day in the same place; whereas in all other places are indifferently born both Boys and Girls.

Others again believe the Males to be begotten of the Seed which comes rather from the right Testicle than the left, esteeming it hotter and not so waterish, because the right Spermatick vein comes from the trunk of the *Vena cava*; and that of the left side takes its rise from the *Emulgent*; but if they know after what manner the blood is circulated, they would find that the blood of the *emulgent* is not more serous, than that of the *vena-cava*, forasmuch as it is purged of its superfluous serosity by the Reines, before it enters this *emulgent*; they would likewise know that the Seed of both Testicles is the same exactly, being made of the same blood, brought to them not by the Reins, but only by the two Arteries, which arise out of the trunk *Aorta*, otherwise called the great *Artery*; wherefore the left is as well disposed to produce Males as Females; and therefore those Husbandmen abuse them.

themselves, in knitting up one of the testicles of their Bulls according as they desire either Males or Females. I knew an *Italian* at *Rome* who had but only his left Testicle, having lost the right upon a good occasion, who after that accident married, and begat two Children, which I saw alive, and very well, one of which was a Boy and the other a Girl; besides all those he may have begotten since that time: nor needed he to suspect his Wife had the assistance of any other in that business, as it very often happens in this Country.

Such persons as desire to foretell before the Child be born, whether it will be Boy or Girl, do usually adhere by complacency, to the desires of the big-bellied Woman and her Husband in this case; for if the Midwife knows they desire a Boy, she will assure them it will be a Boy, and swear to it also; And if they wish for a Girl (as it also happens to some Women, who love Girls best) they will say it shall be a Girl, and lay wagers of it too. If this happens luckily according to her pronostick, she will not be backwards to affirm she knew it very well: but when it happens contrary to her prediction, she makes her self reputed ignorant and presumptuous, and remains ashamed.

For my part I should do quite otherwise: for knowing beforehand the desires of the persons, I should give my advice alwayes quite contrary to them; because if it happen to be true (although by chance) what was foretold, they will then conclude me to be knowing, and to have said well: and if otherwise (which may be once in twice) the Woman and her Husband obtaining what they desired, will not take so much notice of it, because

one alwayes receives with a good welcom what they desire, though unhop'd for.

Having shewed that it is impossible to know whether a big-bellied Woman shall have a Boy or Girl, because of the uncertainty of the signs, upon which they ground their predictions; We will assert that it is not the same in the knowledge one may have, whether a Woman is conceived of more than one. There are many Authors who have affirmed that a Woman cannot bring forth above two Children at once, because they have but two Breasts; as also, because that there are but two cavities in the Womb, different from most other Animals, which hath many little cells in it, and also many teats, wherefore they bring forth many young ones, who usually answer the number of the little cells of their Womb: this is very true in respect of other Animals, but the Womb of a Woman hath but one only cavity (unless they would have the two sides taken for cavities) for there is in the Womb only a simple long line, without any other separation.

We see daily Women brought to bed of two Children at once, sometimes of three, and very rarely of four. Yet I knew one Mr. *Hobert*, Couverer of the King's Buildings, who was so good a Couverer, that his Wife about seventeen years since brought forth four living Children at a birth; which the Duke of *Orleans* deceased coming to hear of, to whom (because of his jovial humour) he was very welcom; the Duke asked him (in the presence of divers Persons of Quality) whether it were true, that he was so good a Fellow as to get his Wife with Child of those four at one bout? He answered ve-

ry coldly, *Yes; and that he had certainly begot at the same time half a dozen, if his foot had not slip'd; which made them all laugh very heartily.*

But I esteem it either a Miracle, or a Fable, what is related in the History of the Lady *Margaret*, Countess of *Holland*, who in the year 1313 was brought to bed of 365 Children at one and the same time; which happened to her (as they say) by a poor Womans Imprecation, who asking an Alms of her, related to her the great misery she was in by reason of those Children she had with her: To which the Lady answered, *She might be content with the inconvenience, since she had had the pleasure of getting them.*

Now since the most usual number is two, that Women have at once, (who have more than one Child at a time) We will give the signs of it, which do not appear in the first months, nor sometimes till they are quick. There is some likelihood of it, if the Woman be extraordinary big, and yet suspects no Dropsie; and more, if there be on each side of the Belly a little rising, and as it were a line a little depressed, or not so elevated about the middle; and most of all, if at the same time one feels many and different motions on both sides; and if these motions are more frequent than usually, which is, because the Infants being straitned, inconvenience one the other, and cause each other to move in that fashion: If all these signs concur, 'tis then very probable the Woman goes with more than one Child.

CH A P. VIII.

OF SUPERFÆTATION.

THere is a great dispute, whether a Woman (who hath two or more Children at once) conceived of them at one, or at several Coitions. We see indeed daily that Bitches, Sows, and Rabbits have divers young with but once copulating, which may very well make us judge the same of a Woman. Some will have this to be by *Superfætation*: but there are signs by which we may know the difference, whether both Children were begotten at once; or successively one after the other.

Superfætation, according to *Hippocrates*, in his Book which treats of it, is a reiterated conception, when a Woman being already with Child, conceives again the second time. That which makes many beleive there can be no *Superfætation*, is; because, as soon as a Woman hath conceived, her Womb closeth and is exactly firm, so that the Seed of the Man, absolutely necessary to conception, finding no place nor entry, cannot (as they say) be received, nor contained in it, so to cause this second conception. To this may be added, that a pregnant Woman dischargeth her Seed (which is as necessary for it as a Mans) by a vessel which terminates on the side of the exterior part of the inward orifice; which Seed by this means is shed into the *Vagina*, and not into the bottom of the Womb, as it should for this purpose. However, it may be

said in answer to these objections, which are very strong, that (though the Womb be usually exactly shut and close when a Woman hath conceived, and besides, that she then sheds her Seed by another conveyance) yet this general rule may have some exceptions, and that the Womb, so closed, is sometimes opened to let pass some serous slimy excrements, which by their stay offend it; or principally, when a Woman is animated with an earnest desire of copulation, in the heat of which action she sometimes dischargeth by the passage that terminates in the bottom of the Womb, which being dilated and opened by the impetuous endeavour of the Seed, agitated and over-heated more than ordinary, and this orifice being at the same time a little opened, if the Mans Seed be darted into it at the same moment, it is thought a Woman may then again conceive, which is called *Superfæcation*. This is confirmed by a History of a Servant, related by *Pliny*, who having the same day copulated with two several persons, brought forth two Children, the one resembling her Master, the other his Proctor. And also of another Woman, who likewise had two Children, the one like her Husband, and the other like her Gallant: but this different resemblance doth not altogether prove *Superfæcation*, because sometimes different imaginations may cause the same effect.

This second conception is effectively as rare, as we find the decision of it uncertain; nor must we imagine that alwayes, when a Woman brings forth two Children or more at once, there is a *Superfæcation*; because they are almost alwayes begot in the same act, by the abundance of both Seeds received

of Women With Child. 51

ved into the Womb : nor believe neither, that it may be at all times of a Womans being with Child : for when it happens, it cannot be either the first or second day of conception ; because, if the last Seed be received into the Womb, it would make a mixture and confusion with the first, which is not yet involved with this little pellicle, that might otherwise separate it ; nor is it formed perfectly till the sixth or seventh day, as *Hippocrates* saw in a Woman, who about that time expelled this geniture : Besides, the Matrix again opening it self, could not hinder the first Seed from slipping out, being not as yet wrapt up in this little membrane, which could preserve it. This makes me not believe the History of the Woman, whom *Pliny* mentions, that it happened for the reasons alledged by him, to wit, that she used copulation the same day with two several persons : for the last would certainly have caused this confusion of Seed, as I have said, and so destroyed the work begun ; but I rather believe, that this *Superfotation* may happen from the sixth day of conception, or thereabouts, till the thirtieth or fortieth at the most ; because then the Seeds are covered with membranes, and that which is contained in the Womb is not yet of a considerable bigness : but after this time, it is impossible, or at least very difficult, because the Womb being extended more and more by the growth of the Child, can hardly receive new Seed, and as hardly retain it, or hinder it from being cast forth by reason of its fulness, having received it in that estate.

When a Woman brings forth one or more Children at a birth, begotten at once, which usually

are called Twins, (and differs from *Superfætation*) 'tis known by their being both almost of an equal thickness and bigness, and having but one only and common after-birth, not separated the one from the other, but by their membranes, which wrap each apart with their waters, and not both in the same membrane and waters, as some have believed, contrary to the truth : but if there are several Children, and a *Superfætation*, they will be also separated by their membranes, but not have a common burthen, but each his apart ; neither will they be of an equal bigness, for that which is the *Superfætation*, will alwayes be lesser and weaker, than that which was engendred at first ; who, because of its force and vigor, drawsto it self the greatest and best part of the nourishment : Just as we find in fair and great Fruit, that have often near them very little ones ; which happens, because those that are first knotted and fastned to the Tree, take away all the nourishment from their neighbours, who did but blossom when the first had already acquired some bigness. Sometimes Twins are not of an equal bigness, which happens according as the one or the other hath more strength to draw to it in greater abundance the best part of the common nourishment.

Six years since I layed a Woman at her full time, whom I delivered of a very great living Girl by the feet, which first came to the birth ; and fetching the after-birth, I brought with it another Child, a dead Boy, as little again as the first Girl ; and which seemed not to be, respecting his bigness, above five or six months ; although they were both begotten at one and the same act of Copulation, as was manifest by their both having but one and the same burthen,

burthen, which is the true sign of it, as I have already said; and this second Child was so little, that it came together with the burthen, and wrapt up in the membranes; which I presently opened, to see whether it were alive; but it had been a long time dead, as appeared by its corruption.

I am not willing to say that there never is any *Superfation*, but I say, that it happens very rarely; for of an hundred Women that have Twins, ninety of them have but one burthen common to both; which is a very certain sign they had no *Superfation*, and much more certain than the Indications taken from the greatness or strength of the Child, which is but conjectural.

CHAP. IX.

Of a MOLE, and its Signs.

OF all the several sorts of Great-Bellies in Women, there remains that yet to be examined which is caused by a *Mole*, of which we must alwayes endeavour the expulsion as soon as we come to know it, being altogether contrary to nature. The *Mole* is nothing else but a fleshy substance, without bones, joynts, or distinction of members; without form or figure, regulated and determined; engendred against Nature in the Womb, after Copulation, out of the corrupted Seed of both the Man and Woman. Notwithstanding, there are sometimes some that have some rudiments of a rough form.

It is very certain, Women never engender *Moles* with-

without the use of copulation, both Seeds being required to it, as well as for a true generation. There are some, truly, who never having had to do with a Man, do naturally cast forth, after a flooding, some strange bodies, which in appearance seem to be flesh; but if one take special notice thereof, they will find it but clods of blood coagulated, without consistence or fleshy texture, or membranous, as are the Moles and false-Conceptions.

Moles are ordinarily engendred, when either the Man or the Womans Seed, or both together, are weak, or corrupted, the Womb not labouring for a true conception, but by the help of the Spirits with which the Seed ought to be replenished: but so much the easier, as the small quantity found in it is extinguished, and as it were choaked, or drowned by abundance of the gross and corrupted menstruous blood, which sometimes flows thither soon after conception, and gives not leisure to Nature to perfect, what she hath with great pains begun, and so troubling its work, bringing thither confusion and disorder, there is made of the seeds and blood a meer *Chaos*, call'd a *Mole*, not usually engendred but in the Womb of a Woman, and never or very rarely found in that of other Animals, because they have no menstruous blood, as she hath.

A *Mole* hath no burthen, nor navel string fastned to it, as a Child alwayes hath; forasmuch as the Mole it self adheres to the Womb, by which means it receives nourishment from its vessels: it is likewise cloathed usually with a kind of membrane, in which is found a piece of flesh confusedly interlaced with many vessels; it is of a bigness and consistence more or less according to the abundance of

of blood it receives, according to its disposition, and also according to the temperature of the Womb, and the time it staves there; for the longer it staves, the harder it grows, and becomes schirrous, and difficult to be expell'd. For the most part there is but one, yet sometimes more; of which, some cleave very strongly, others very slightly to the Womb. When Women miscarry of them before the second month, they are called false-Conceptions: when they keep them longer, and that this strange body begins to grow bigger, they are called *Moles*. False-Conceptions are more membranous, and sometimes full of corrupted Seed; but *Moles* are altogether fleshy. One may find in a Woman that hath a *Mole*, almost all the signs of Conception, and of a Woman with Child; but there are likewise some other which differ, because her belly is harder and forer, than when she is with Child. The *Mole* being contrary to Nature, is very troublesome to a Woman: and as it hath no true life, nor animal motion; so it is very painful to go with: for the *Mole* falls on whatsoever side she turns, when she is a little big, just like a heavy Bowl: She hath a great weariness in her legs and thighs, and suppression of urine from time to time, and finds a great heaviness in the bottom of her belly, forasmuch as this mass of flesh by its weight weighs down the Womb, which compresseth the bladder of urine: her breasts are not so swell'd, neither have they any, or very little milk. It may be yet easier known, if with all these signs she finds no motion after the 4th or 5th month of her Great-Belly; and certainly, if after her reckoning is out, all the aforesaid signs remain and continue in the same manner.

These *Moles* are nourished in the womb, to which they almost always adhere, and are sustained by the blood with which it is always furnished, just as Plants are by the moisture of the Earth. Sometimes there is a Child together with a *Mole*, from which it is sometimes divided, and sometimes cleaving to its body; which puts it in great danger of being mishapen or monstrous, because of the compression which this strange body causeth to the Infant yet very tender. In the year 1665, being at Mr. *Bourdélots*, Doctor in Physick of the Faculty of *Paris*, where was every Monday held Academical Conferences: As they fell upon the discourse of the *Circulation of the Blood*, which I explained according to my opinion, they brought thither the Infant of a Woman newly brought to bed at her full time, which wanted all the upper part of the head, having no skull, no brain, no nor any hairy scalp; but had only, in lieu of all those parts, a *Mole*, or fleshy mass flat and red, of the thickness and bigness of an after-burthen, covered with a simple membrane strong enough: This Infant had however all the other parts of the body fat, and well composed and shap'd. This monstrous disposition was the cause of its death as soon as it was born, and yet it was very wonderful and astonishing to consider, how it could live so without brain; as also very difficult to understand, how this fleshy mass could serve in stead of it, whilst it was in the Mothers belly. It was

* *The fleshy part of the burthen.* interwoven with many vessels, like a kind of * *Placenta*, yet of a more firm substance. Mr. *Clenk* and Mr. *Juillet*, my Brethren and good Friends, were

were then present, and saw this Prodigy as well as my self.

A Woman having a Mole, hath a much worse colour, and is every way more inconvenienced; than a Woman with Child; and if she keeps it long, she lives all the while in danger of her life. Some have them two or three years, and sometimes all the rest of their lives: As hapned to a Peurerer's Wife, of whom *Ambrose Paré* makes mention in his Book of Generation, who had one seventeen years, and at last died of it. We will declare the Remedies convenient for it in another place, where we speak of its extraction.

CHAP. X.

In what manner a Woman ought to govern her self during her being with Child, when it is not accompanied with other considerable accidents, to endeavour to prevent them.

A Woman with Child in respect of her present disposition, although in good health, yet ought to be reputed even as though she were sick, during that neuter estate (for to be with Child, is also vulgarly called a sickness of nine months) because she is then in daily expectation of many inconveniences, which pregnancy usually causes to those that do not govern themselves well.

She should in this case resemble a good Pilot, who being imbarqued on a rough Sea, and full of Rocks, shuns the danger, if he steers with prudence; if not,

not, 'tis by chance; if he escapes Shipwrack: So a Woman with Child is often in danger of her life; if she doth not her best endeavour to shun and prevent many accidents to which she is then subject; all which time there must be care taken of two, to wit, her self, and the Child she goes with: for from one single fault results double mischief, inasmuch as the Mother cannot be any wayes inconvenienced, but the Child partakes with her.

Now to the end she may maintain her self in good health, as much as can be in that condition, which alwayes keeps a middle state, let her observe a good dyet, suitable to her temperament, custom, condition and quality, which the right use of all the six non-natural doth effect.

The Air, where she ordinarily dwells, ought to be well temper'd in all its qualities: if it be not so naturally, it must be corrected as much as may be by different means; she must avoid that which is too hot, because it often causeth, by dissipating too much the humours and spirits, many weakneses to Women with Child, & particularly also that which is too cold and foggy; for, causing great Rhumes and distillations upon the lungs, it exciteth a cough, which by its sudden and impetuous motions, forcing downwards, may make the Woman miscarry. She ought not to dwell in narrow Lanes very dirty, nor near common Dunghills. For some Women are so nice, that the stink of a Candle not well extinguish'd, is enough to bring them before their time, as *Liebau* assures us he himself had seen; which likewise may be caused, if not sooner, by the smell of Charcoal, as hapned once to a Laundress, whom I knew, that miscarried the fourth month; being in extreme
haste

haste to finish some Linen on a Saturday night, she had not patience to kindle the Charcoal in the Chimney, but in the Room in a Chafingdish, which flew up into her head, and made her miscarry the same night, and in danger of dying. Let the Woman therefore endeavour, as much as her convenience will permit, to live in an Air free from these inconveniencies.

The greatest part of Women with Child have so great loathings, and so many different longings, and strong passions for strange things, that it is very difficult to prescribe an exact dyet for them: but I shall advise them in this case to follow the opinion of *Hippocrates*, in his 38th Aphorism, 2^d Book, where he saith, *Paulo deterius & potius & cibum, suavior tamen, melioribus quidem, sed insuavioribus, praferendum*. Meat and Drink though not so wholesome, if it be but pleasant, is to be preferred before that which is wholesom, if not so pleasant: which in my opinion is the rule they ought to observe, provided what they long for, is commonly used for dyet, and not strange and extraordinary things; and that they have a care of excess. If the Woman be not troubled with these loathings, let her then use such a dyet, which breeds good juyce, and in quantity sufficient for her and her Child: her appetite may regulate that. She must not then fast nor be abstemious, because overheating the Mothers blood thereby, renders it unfit to nourish the Child, which ought to be sweet and mild, and makes it tender and weak, or constraits it to come before its time, to search what is fit for it elsewhere: she must not eat too much at a time, and chiefly at nights, because the Womb by its extent

possessing

possessing a great part of the belly, hinders the stomach from containing much, which causeth thereby a difficulty of breathing, because it compresseth the *Diaphragma*, which as then hath not an intire liberty to be moved. Wherefore let her rather eat a little and often; let her bread be pure Wheat, well baked and white, as is that of *Gonesse* at *Paris*, or the like; and not coarse household Bread or Bisket, which swells up the stomach, nor any other of the like nature that's very stuffing. Let her eat good nourishing meat, as are the tenderest parts of Beef and Mutton, Veal, Fowl; as fat Pullers, Capons, Pidgeons and Partridge, either roast or boyled as she likes best; fresh Eggs are also good: And because big-bellied Women have never good blood, let her put into her Broths those herbs which purifie it, as Sorrel, Lettice, Succory, and Borrage; she must avoid hot-seasoned Pyes and baked Meats, and especially Crust, because being hard of digestion, it extreamely overchargeth the stomach: If she hath a mind to Fish, let it be new, and not salted; Fish of Rivers and running streams, forasmuch as Pond-Fish taste of mud, and breeds ill juyce. But if big-bellied Women cannot absolutely refrain their extravagant longings, it is better (as we have already said) to suffer them to deviate a little from this rule of dyet (provided it be moderate) than too much to oppose their appetites. They may drink at their meals a little good old Wine well temper'd with Water, and rather Claret than White-wine; which will help make a good digestion, and comfort the stomach, which is alwayes weak during pregnancy; and if they were not used to drink it before, let them accustom themselves to it by degrees;

grees ; and as well in drinking as eating, they must shun all things hot and diurectick, because they provoke the courses, which is very prejudicial to the Child.

By moderate sleep, all the natural functions of a Woman are fortified, and particularly the concoction of food in the stomach, which then is very subject to loathings and vomitings. We say, it must be moderate ; because, as excessive watchings dissipate the Spirits, so too much sleep choak them. Let therefore Women with Child sleep nine or ten hours at least in four and twenty, and twelve at most ; and let it be rather in the night-time, as most fit for rest, than in the day, as persons of quality are accustomed, who frequenting the Court, ordinarily turn night into day. However they who have gotten this ill habit, had better continue it than change too suddenly, because this custom is become natural to them.

For what respects exercise and rest, let them govern themselves according to the different time of their being with Child ; for at the beginning of the conception (if the Woman perceives it) she ought (if she can) to keep her bed, at least till the fifth or sixth day, and by no means to use copulation all the time ; forasmuch as the Seeds being not yet covered with the membrane, which is formed in that time (as we have said already) are in the beginning, by the agitation of the body, very apt in some persons to slip forth. She ought neither to go in Coach, Chariot or Waggon, nor on Horseback, whilst with Child ; and much less the nearer she comes to her time : because this kind of exercise doubles the weight of what is contained in the Womb,

Womb, by the jolts she receives, and often makes her miscarry : But she may walk gently, go in a Sedan or Litter ; She ought neither to carry or lift heavy burdens, nor lift up her arms too high : and therefore she ought not to dress her own head, as she used to do, because it cannot be done without stretching her arms too much above her head, which hath caused many to miscarry before their time ; because the ligaments of the Womb are at once loosened by these violent extensions. Let her exercise be gentle walking, and the heels of her shoes low ; because Women cannot, for the bigness of their bellies, see their feet, and so are subject to stumble and fall : In short, she must govern her self in these exercises, rather to err in too much rest, than in too much exercise ; for the danger is greater by immoderate motion, than in too much rest. It is impossible for me in this point to be of the opinion of all Authors, although all the World follows them in this their evil and dangerous counsel, who would have a pregnant Woman exercise her self more than ordinary toward the latter end of her reckoning, that so, *as they say*, the Child may sink lower : But if they consider the point well, they would without doubt find it to be the cause of more than half of the hard Labours ; and that on the contrary, rest would be more advantagious to them, as I shall prove by the following explication.

First, We must know and take for granted that the birth of a Child ought to be left to the work of Nature well regulated, and not to provoke it, by shaking it with this exercise, for to dislodge it before its full time : which hapning (though it be but seven or eight dayes sooner) proves sometimes as pre-
judicial

judicial to the Infant, as we see it is sometimes to Grapes, which we find four or five dayes before they are full ripe, to be yet almost half Verjuice. But to explain more clearly than by this comparison, that these kind of exercises often cause hard labours, (as we have already said) consider that the Infant is naturally scituated in the Womb with the head uppermost, and the feet downwards, with its face towards the Mothers belly, just till it hath attained to the eighth month; at which time, and sometimes sooner, and sometimes also later, his head being very great and heavy, he turns over, his head downward and his heels upwards, which is the sole and true scituation, in which he ought to come into the World, all other postures being contrary to Nature. Now just when the Child is about to turn according to custom into his intended posture, instead of giving her self rest, she falls a jumping, walking, running up and down stairs, and exercising her self more than ordinary, which very often causes it to turn cross, and not right as it ought to be; and sometimes the Womb is depressed so low, and engaged in such sort towards the last month, in the cavity of the *Hypogastres*, by these joltings, that there is no liberty left the Infant to turn it self naturally; wherefore it is constrained to come in its first posture, to wit, by the feet, or some other worse. Moreover, it would be very convenient that the Woman to this end should abstain from Coition, during the two last months of her reckoning, forasmuch as the body is thereby much moved, and the belly compressed in the action, which likewise causeth the Child to take a wrong posture. I believe that they that will seri-
ously,

ously reflect on these things, will make no difficulty to quit this old error, which hath certainly caused the death of many Women and Children, and much pain to divers others, for the reasons above-mentioned.

Some Women have miscarried only with the noise of a Cannon; as also with the sound of a great Bell; but especially with a clap of Thunder, when of a sudden it surpriseth them, and frights them.

Big-bellied Women are sometimes subject to be costive, because the Womb by its weight pressing the *Rectum*, hinders the Belly from discharging its excrements with ease. They that are troubled with this inconvenience may use Damask-Prunes stewed, Veal-Broth, and Herb-Pottage, with which they may gently moisten and loosen the Belly. If these things are not sufficient, they may give her gentle Clysters of Mallows, Marsh-mallows, Pellitory and Anise-seeds, with two ounces of brown Sugar dissolved in it, adding a little Oyl of Violets, or else a Decoction made with a handful of Bran, two ounces of Honey of Violets, and a piece of fresh Butter; or any other as occasion might require: but there must be great care taken that no sharp Clysters be given her to this purpose, nor other Drugs to cause a looseness, or too great an evacuation, lest it endanger her to miscarry: as *Hippocrates* very well warns us in the 34th Aphorism of his fifth Book, where he sayes, *Mulieri in utero gerenti si alvus plurimum profluat, periculum est ne abortiat.* If a big-bellied Woman have a violent looseness, she will be in danger of miscarrying.

If she ought to govern her self well in the observation of what we have lately mentioned, she ought

no less to be careful to overcome and moderate her passions, as not to be excessive angry; and above all, that she be not afrighted; nor that any melancholly news be suddenly told her: for these passions, when violent, are capable to make a Woman miscarry at the moment, even at any time of her going with Child; as it hapned to my Cousins Mother, named Mrs *Dionis*, a Merchant, dwelling in the Street *Quinquampois*, whose Father being suddenly killed with a Sword by one of his Servants; who meeting him in the Street traiterously run him through out of spite and rage, because he had some few dayes before turned him out of doors: they brought immediatly this ill news to his Wife, then eight months gone, and presently after brought her dead Husband; at which sudden fright she was immediatly surpris'd with a great trembling, so that she was presently delivered of the said *Dionis*, who is to this day (which is very remarkable) troubled with a shaking in both hands, as his Mother had when she was delivered of him, having yet no other inconvenience, notwithstanding he was born in the eighth month by such an extraordinary accident; nor doth he seem to be above fourry years old, though near fifty. When he signed his Contract of Marriage, they who knew not the reason of it, when they saw his hands shake, thought it was through fear of his ill Bargain, of which they were disabused when they had heard the *Catastrophe* that hastened his birth. Wherefore if there be any news to tell a big-bellied Woman, let it rather be such as may moderately rejoyce her, (for excessive joy may likewise prejudice her in this condition) and if there be an absolute necessity to acquaint

quaint her with bad news, let the gentlest means be contrived to do it by degrees, and not all at once.

As soon as a Woman finds her self with Child, or mistrusts it, let her not lace her self so close, as she ordinarily doth, with Bodies stified with Whalebone, to make her Body shapely: which very often injures her Breast, and so inclosing her Belly in so strait a mould, she hinders the Infant from taking its free growth, and very often makes it come before its time, and misshapen. Those Women are so foolish as not to mind, that making themselves slender when they are with Child, quite spoils their Belly, which therefore after Childbed remains wrinkled, and pendent as a Bag, and then they cry, It is the Midwife or Nurse that did them that mischief, in not swathing and looking to them as they ought to do; not considering that it came by their strait lacing whilst they were big upwards, which causeth the Belly, finding no place to be equally extended on all sides, to dilate it self onely downwards, whither all the burthen is in that manner thrust and carried: to avoid which, let them use habits more large and easie; and wear no Busks, with which they presse their Bellies to bring them into shape. Let them also forbear Bathing in any manner, after they know they have conceived, lest the Womb be excited to open before the time. Almost all big-bellied Women are so insatued with the custom to bleed when they are half gone, and in the seventh month, that if they should neglect it, (although they were otherwise well) they would never believe they could be well delivered. I will not in the mean time justify and
make

make them believe by that, what *Hippocrates* saith in his 3rd Aphorism of his 5th Book; *Mulier in utero ferens, sella vena abortit, etque magis si sit factus grandior.* If (saith he) a Woman be blooded, she miscarries; and the rather, if she be far gone. This Aphorism must not prohibit us the use of bleeding when the case requires, but only warns us to use it with great prudence; forasmuch as some Women want bleeding three or four times, yea, and oftner sometimes, whilst they are with Child, when twice may be sufficient to others: For as there have been some that have been blooded nine or ten times for diseases during their pregnancy, and yet go on with their Infant to their full account; so others have miscarried by bleeding but once a little too copiously, as in this Aphorism speaks *Hippocrates*. Now since all are not of the same nature, they must not be all governed after the same manner, nor believe that it is necessary to bleed all big-bellied Women; one may judge of the necessity according as they are more or less sanguine. It is the same in purging, which ought to be prudently administred as well as bleeding, according to the exigency of the case, using alwayes gentle and benign remedies when they are necessary; as *Cassia*, *Rhubarb*, *Manna*, with the weight of a dram or two at most of good *Senna*. These Purgatives may serve turn for a Woman with Child, she ought not to use others more violent: If she observes all that we have above mentioned, she may then hope for a good issue of her great-Belly.

Having amply enough declared, how a Woman with Child should be governed when accompanied with no ill accident, and given the Rules she ought

to keep to prevent them, We will now examine several Indispositions, to which she is subject particularly during her pregnancy.

CH A P. XI.

The means to prevent the many Accidents, which happen to a Woman during the whole time of her being with Child; and first of Vomitings.

VOMITING, with the suppression of the Terms, is for the most part the first Accident which happens to Women, and the means by which they themselves perceive their pregnancy. It is not always caused, as is believed, from ill humours collected in the stomach, because of this stoppage of their Courses: these corrupted humours do often cause a depraved appetite in pregnant Women, when either they flow thither, or are there engendered; but not this Vomiting which happens immediately after Conception, and which comes by succession: it cannot be meant of those which are there afterwards corrupted; but these first Vomitings proceed from the sympathy between the Stomach and the Womb, because of the similitude of their substance, and by means of the Nerves inserted in the upper orifice of the Stomach, which have communication by continuity with those that pass to the Womb, being portions of the sixth pair of those of the Brain. Now the Womb, which hath a very exquisite sense, because of its membranous composition, beginning to wax bigger, feels

feels some pain, which being at the same time communicated by this continuity of Nerves to the upper orifice of the Stomach, cause there these nauseatings and vomitings which ordinarily happen. And to prove that it is thus in the beginning, and not by pretended ill humours, appears, in that many Women vomit from the first day of their being with Child, who were in perfect health before they conceived, at which time the suppression of the Terms could not cause this Accident, which proceedeth from this sympathy in the very same manner; as we see those that are wounded in the Head and Bowels, and that have the Stone-Cholick, are troubled with Loathings and Vomitings, and yet have no corrupt humours in the stomach. Loathings and Vomitings, which are motions of the stomach contrary to nature, happen to big-bellied Women from the beginning, for the reasons above recited.

Loathing or Nauseousness, is nothing but a vain desire to vomit, and a motion by which the Stomach is raised towards the upper orifice, without casting up any thing. And Vomiting is another more violent endeavour, by which it casts forth of the mouth what humour soever is contained in its capacity. In the beginning Vomiting is but a single symptom not to be feared; but continuing a long time, it weakens the stomach very much, and hindring digestion, corrupts the food instead of concocting it, whence afterwards are engendred those ill humours, which need purging. These Vomitings ordinarily continue to the third or fourth month of being with Child, which is the time the Child appears manifestly to quicken in, after which it begins to cease, and Women to recover the appetite they

had lost during their being young with Child ; because the Infant growing stronger and bigger, having need of more nourishment, consumes abundance of humours, which hinders the flowing of so much superfluity to the stomach ; besides, at that time the Womb is by degrees accustomed to extension : It continues in some till they are delivered, which often puts them in danger of miscarrying, and the rather, the nearer the Woman is to her full time. Others again are more sometimes tormented with it towards the end of their reckoning than at the beginning : because the stomach cannot then be sufficiently widened to contain easily the food, being compressed by the large extension and bigness of the Womb. Such a Vomiting which comes about the latter end of the reckoning to Women whose Children lie high, seldom ceaseth before they are brought to bed.

You need not wonder, or be much troubled at the Vomiting in the beginning, provided they are gentle and without great straining, because they are on the contrary very beneficial to Women ; but if they continue longer than the third or fourth month, they ought to be remedied, because the Aliment being daily vomited up, the Mother and the Child, having need of much blood for their nourishment, will thereby grow extremely weak, besides the continual subversion of the stomach, causing great agitation and compression of the Mothers Belly, will force the Child before its time, as is already mentioned.

To hinder this Vomiting from afflicting the Woman much or long (it being very difficult to hinder it quite) let her use good food, such as is
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specified before in the Rules of Diet; but little at a time, that the stomach may contain it without pain, and not be constrained to vomit it up, as it must when they take too much, because the big-belly hinders the free extension of it; and for to comfort and strengthen it (being alwayes weak) let her season her meat with the Juice of Oranges, Lemmons, Pomegranets, or a little Verjuice or Rose-Vinegar, according to her appetite. She may take likewise a Decoction made of French-Barley-flower, or good Wheat-flower, having dryed the flower a little before in an Oven, mixing the yolk of an Egg with it, which is very nourishing and of easie digestion: she may likewise eat after her meals a little Marmalade of Quinces, or the Jelly of Goosberries; let her Drink be good old Wine, rather Claret than White, being well mixed with good running Fountain-Water, and not that which hath been long kept in Cisterns, as is most of the Water of our Fountains of *Paris*, which acquire by that stay an evil quality: If she cannot get such fresh Waters, let her rather use River-Water taken up in a place free from filth, in which she may sometimes quench her Thirst. Above all, let her forbear all fat Meats and Sauces, for they extremely moisten and soften the Membranes of the Stomach, which are already weak enough, and relaxed by the Vomiting; as also all sweet and sugered Sauces, which are not convenient for her, but rather such as are a little sharp, with which it is delighted and comforted.

But if notwithstanding these Precautions, and this regular Diet, the Vomiting (as it sometimes happens) continues still, although the Wo-

man be above half gone, it is a clear sign there are corrupt humours cleaving to the inward sides of the Stomach, which being impossible to be evacuated by so many preceding Vomitings, because they adhere so fast, must be purged away by Stool, to effect which they need a Dissolvent, which may be a gentle Purge, made by infusing half a dram of Rhubarb, a dram or two at most of good Senna, and an ounce of Syrup of Succory: which Purge dissolves the humours, and in evacuating them, comforts the parts: Or, it may be made with young Mallows, *Cassia*, Tamarinds, or any other gentle Purgers, according as the case requires, alwayes adding a little Rhubarb, or compound Syrup of Succory; observing likewise what humours ought to be purged: For, as *Hippocrates* saith, in the 12th Aphorism of his first Section, *In perturbationibus ventris, & vomitibus sponte evenientibus, si quidem qualia oportet purgari, purgantur, cessant & facile ferunt: si minus contra, &c.* In perturbations and dejections of the Belly, and in spontaneous Vomitings, if the matter be purged away, which ought to be, the Patient finds ease and comfort: if not, the contrary. Therefore we are to consider, that it is not enough to purge, unless we evacuate the peccant humours; for otherwise purging more weakens the Stomach, which it would not if it were well ordered, and convenient to evacuate the vicious humour. If once be not sufficient, it may be repeated, giving the Woman some few dayes respite between both; if the Vomiting continues daily, almost without intermission, although the Woman observes a good dyet, and after that she hath been reasonably well purged, we must rest there, lest something worse happen,

happen, of which we may incur the blame ; for she is then in great danger of miscarrying : and when the Hiccough takes them through emptiness, proceeding from too much evacuation, caused by these continual vomitings, it is very bad, as the third Aphorism of the second Book teacheth us, *A Vomitu singultus malum.*

Some advise, that after all these things have been tryed in vain, great Cupping-glasses should be applyed to the region of the stomach, to keep it firm in its place : but I believe it to be a Chip in Pottage, which doth neither good nor hurt ; because the stomach is loose, and no wayes adhering to this upper part of the belly : but since these Vomitings cool it, and daily weaken it, I should advise a big-bellied Woman to wear in the Winter, upon its region, a good piece of warm Serge, or soft Lambskin, which would a little warm those parts, and help digestion, which is alwayes weak. The *Italians* have a Custom, which is not bad ; they wear to the same purpose a fair piece of Stuff under their Doublets upon the region their stomach, of which they are so careful, that if they should leave it off but two dayes in the Winter, nay even in the Summer, they would think themselves sick ; and they are so great lovers, and so curious of it, that this Stomacher is often their greatest bravery, enriching it with Gold and Silver Embroidery, and Ribonds of very fine colours.

We have discoursed enough about Vomiting caused by Pregnancy, wherefore we will pass forwards to some other Accidents.

CHAP. XII.

Of Pains of the Back, Reins, and Hips.

ALL these Accidents are but the effects of the dilatation of the Womb; and the compression it makes by its greatness and weight on the neighbouring parts; which are much greater the first time the Woman is with Child than afterwards, when the Womb only receives the same dimensions it had already before: but when it hath not yet been dilated, it is more sensible of this extension, and the ligaments, which hold it in its natural situation, suffer a greater stress in the first pregnancy, having never before been forced to lengthen to answer the extent of the Womb than in the following Great-Bellies, to which it obeys more easily the second time; but not so the first.

These ligaments, as well round as large, cause these pains, being much strained and drawn by the greatness and weight of the Womb, which contains a Child, to wit, the large ones, those of the back and loins, which answer to the reins, because these two ligaments are strongly fastened towards these parts; the round ones cause those of the groins, shins, and thighs, where they terminate. They are sometimes so violently extended by this extraordinary greatness and great weight of the Womb, especially of the first Child (as I said before) that they are lacerated and torn, being not able to yield or stretch any farther, and chiefly if the Woman in that condition makes a false step, which causeth in them

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them almost insupportable pains, and other worse accidents; as it happened two years since to a near Kinswoman of mine, who being six months gone, or thereabouts, of her first Child, felt the like after she had stumbled, and perceived at the same moment something crack in her Belly towards the region of the Reins and Loins, which was one of these large ligaments, with a kind of noise, by the sudden jolt she received. At the same instant she felt extreme pains in her Reins and Loins, and all the one side of her Belly, which made her immediately vomit very often with much violence, and the next day she was taken with a great continued Fever, which lasted seven or eight dayes, without being able to sleep or rest one hour, all which time she continued to vomit all she took, with a strong and frequent Hiccough, having also great pains, which seemed as if they would hasten her Labour, which (for her sake) I was very apprehensive of, as also of her death: but with the help of God, having put her immediatly to bed, where she continued twelve whole dayes, in which time I bled her thrice in her Arm on several dayes, and made her take at two several times a small grain of *Laudanum* in the yolk of an Egg, a little to ease her violent pains by giving her rest, alwayes ordering her from time to time good strengthening Cordials; all these symptoms, which at first seemed desperate, ceased by little and little, and she went on her full time, when she was happily delivered of a Son, which lived fifteen months notwithstanding all those mischievous accidents she met with, which were enough to have kill'd half a dozen others: but God sometimes is pleased to work Miracles by Nature, aided with

Reme-

Remedies fit for the purpose, as well as by his Grace.

This History informs us (I think) very well how these Pains of the Loins, Back, and Reins come; and the pregnant Womb causeth also those of the Hips by its greatnels and weight, in compressing them, and bearing too much upon them. There is nothing will ease all these sorts of Pains better, than to rest in Bed, and bleed in the Arm, if there were any great extension or rupture of any ligament of the Womb, as was in the case recited: And when the Womb bears and weighs too much upon the Hips, if the Woman cannot keep her Bed, she ought to support and comfort her Belly with a broad Swaith well fitted for the purpose, and to bear it as patiently as she can to the time of her Labour, which will free her from all these accidents.

CH. A P. XIII.

Of the Pains of the Breasts.

AS soon as a Woman conceives, her Terms wanting the ordinary evacuation, the passages being stopr, and the Woman breeding daily blood, there is a necessity, she consuming but little whilst young with Child, the fruit being yet very little also, that the vessels which are too full, should disgorge part, as it doth upon the parts disposed to receive it, such as are the kernels and glandulous parts, especially the Breasts, which imbibe and receive a great quantity of it, which filling and ex-
treamly

treably swelling them, causeth this Pain in them, which Women feel when they are with Child, and happens also to those whose Terms are only suppressed.

In the beginning we ought to leave the whole work to Nature, and the Woman must only have a care she receives no blows upon those parts, which are then very tender, nor be straight laced with her Bodies, or other stiff Waistcoats, that might bruise and wound her; upon which follow Inflammations and *Abscesses*: But after the third or fourth month of going with Child, the blood being still sent to the Breasts in great abundance, 'tis much better to evacuate it by bleeding in th' Arm, than to turn or drive it back on some other part of the Body by repercussive or astringent Medicines; because it cannot flow to any part, where it can do less hurt, than in these. Wherefore I should rather prefer the Woman being very plethorick, to evacuation, by bleeding in the Arm, than any other way, because of shunning thereby the Accident, of which speaks *Hippocrates* in his 40th Aphorism of the 5th Book, *Quibus Mulieribus in Mammis sanguis colligitur, furorem significat*: If the blood be carried in too great abundance to the Breasts, it signifies that the Woman is in danger of being frantick, because of the transport which may be made thence to the Brain; which accident is avoided by moderate bleeding in the Arm, as also by a regular cooling dyet, moderately nourishing, for to diminish the quantity, and temper the heat of the humours of the whole habite.

CHAP. XIV.

Of Incontinence, and difficulty of Urine.

THe scituation of the Bladder, which is placed just upon the Womb, is sufficient to instruct us wherefore pregnant Women are sometimes troubled with difficulty of urine, and the reason why they cannot often hinder, nor scarce retain their water; which is caused two ways: 1. Because the Womb with Child by its bigness and weight compresseth the Bladder, so that it is hindred from having its ordinary extension, and so incapable of containing a reasonable quantity of urine: Which is the cause that the bigger the Woman grows, and the nearer her time she approaches, the oftner she is compelled to make water, which for that reason they cannot keep. 2. If the weighty burden of the Womb doth very much compress the bottom of the Bladder, it forceth the Women to make water every moment: but contrarily, if the neck of it be pressed, it is filled, so extreemly with urine, which staves there with great pain, being not able to expel it, forasmuch as the Sphincter, because of this compression, cannot be opened to let it out. Sometimes also the urine by its acrimony excites the Bladder very often by pricking it, to discharge it self; and sometimes by its heat it makes an inflammation in the neck of the Bladder, which causeth its suppression. It may be likewise that this Accident is caused by some Stone contained in the Bladder; then the pains of it are almost

most insupportable, and much more dangerous to Woman with Child, than to one that is not; because the Womb by its swelling causeth perpetually the Stone to press against the Bladder; and so much the violenter are these pains, as the Stone is greater, or the figure of it unequal and sharp.

It is of great consequence to hinder these violent and frequent endeavours of a big-bellied Woman to make water, and to remedy it, if possible, both in one and the other indispositions; because by long continuance of alwayes forcing downwards to make water, the Womb is loosned and bears very much down, and sometimes is forced (the inconvenience not ceasing) to discharge it self of its burden before the ordinary time. This is that should be endeavoured to be hindred, having respect to the different causes of the distemper; as when it comes from the bigness and weight of the Womb, pressing the Bladder, as it is for the most part: the Woman may remedy it, and ease her self, if when she would make water, she lift up with both her hands the bottom of her belly: she may wear a large Swaith accommodated to this use, which will bear it up if there be occasion, and hinder it from bearing too much upon the Bladder; or, to do better, she may keep her Bed.

If it be the acrimony of the urine that makes the inflammation on the neck of the Bladder, it may be appeased by a regular cooling dyet, drinking only *Prisan*, and forbearing the use of Wine, and all sorts of Purgations, because they send the filth of the whole body to the part affected, and by their heat do yet more augment the acrimony and inflammation: but she will do well to use, mornings and evenings,

evenings, Emulsions made with the cold Seeds, or Whey mixt with Syrup of Violets. This Remedy is proper, by refreshing gently, to cleanse the urinary passages, without prejudicing either the Mother or Infant. If the inflammation and acrimony of the Urine be not removed by this Rule of Dyet, they may let her blood a little in the Arm, to prevent any ill accident that may happen: they may likewise bath her outward entry of the neck of her Bladder with a Decoction of emollient and cooling Herbs, as the leaves of Mallows, Marsh-mallows, Pellitory, and Violets, with a little Linseed, which being viscous, will help the conduit of the Urine to dilate it self the easier; there may be also Injections given into the Bladder of the same Decoction, to which may be added Honey of Violets, or else of lukewarm Milk.

But if the Woman, notwithstanding she observes these Directions, cannot make water, recourse must be had to the last remedy, which is, to draw it forth by a Catheter, represented and marked with the Letter M in the Table of Instruments, at the end of the second Book, which being anointed with Oyl Olive, or sweet Almonds, having first lifted up and thrust the Belly a little upwards, must be gently introduced by the urinary passages into the very hollow of the Bladder, and then the Urine will immediately pass away; which being finished, the Catheter must be taken forth, and if the suppression continues, it may be used again in the same manner until the accident quite leave her, and then they may try whether she can urine naturally. If she be in very great extremity, she may use an half-Bath luke-warm, provided she be not too much moved

moved by this Remedy, abstaining also from all Diureticks, which are very prejudicial to big-bellied Women, because they provoke abortion. If on the other side, this evil arises from the Stone, which presenting it self to the neck of the Bladder, stops the urinary passage, whilst with Child; she must be contented to have it only thrust back with a Catheter: but if it be small, one may try to draw it forth with a small Probe fit for the purpose, putting the fore-finger into the *Vagina*, to keep it in subjection that it recoil not back towards the Bladder, which is only to be done to the small ones; for she must be delivered before the great ones can be drawn forth, it being better to leave her in that condition, than to endanger her life or the Childs, by drawing it.

CH A P. XV.

Of the Cough, and difficult breathing.

WOMEN whose Children lie low, are oftener troubled with difficulty of Urine (as we have mentioned in the foregoing Chapter) than they whose Children lie higher, who are indeed exempted from this and the like inconvenience, but are then more subject to a Cough and difficulty of breathing than the former.

A Cough, if violent, as sometimes, even to vomiting, is one of the most dangerous accidents, which contributes to Abortion, because it is an essay by which the Lungs endeavour to cast forth of

the Breast that which offends them, by a compression of all its Muscles, which pressing all the inclosed air inwards, with which the Lungs are much extended, thrusts also by the same means with a sudden violence the *Diaphragma* downwards, and consequently all the parts of the lower Belly, but particularly the Womb of the pregnant Woman, which accident continuing long and violent, often causeth her to come before her time.

This Cough proceeds sometimes from sharp and biting rheumes, which distill from the brain upon the sharp Artery and the Lungs, and sometimes from a blood of the like nature, which flowes from the whole habit towards the Breast, upon the suppression of the Terms; as also from having breathed in too cold an air, which irritates the parts, and excites them to move in that manner; but being begun by these causes, it is very often augmented by the compression the Womb of the pregnant Woman makes upon the *Diaphragma*, which cannot have its free liberty in those that bear their Children high, because by its great extension it bears up almost all the parts of the lower Belly towards the Breast, and principally the Stomach and Liver, forcing them against the *Diaphragma*, which is thereby compressed, as we have said.

This may be remedied by the Womens observing a good diet something cooling: if sharp humours cause it, avoiding all meats salted, spiced, or *hautgoust*; she must forbear sharp things, as Oranges, Citrons, Pomgranats, Vinegar, and others of the like nature, because they yet more and more by their pricking quality excite the Cough: but she may make use of Lennitives and such as sweeten the passages,

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passages, as juice of Liquorish, Sugarcandy, and Syrup of Violets, or Mulberries, of which they may mix some spoonfulls with a *Pysan* made with Jujubes, Sebestens, Raisons of the Sun and French-Barly, alwayes adding a little Liquorish to it : It may not likewise be amiss to turn the abundance of these humours, and draw them downwards by some gentle Clyster. If this regimen prevails nothing, and that there appears signs of fulness of blood, it will be necessary, at whatsoever time it be of her going with Child, to bleed her in the Arm, and though this remedy be not usually practised when they are young with Child, yet in this case it must : for a continual Cough is much more dangerous than moderate bleeding. If the Cough comes of cold, let her be kept in a close Chamber with a Napkin three or four times double about her Neck, or a Lamb-skin, that it may keep her warm ; and going to bed let her take three or four spoonfulls of Syrup of burnt Wine, which is very pectoral, and causeth a good digestion, if it be made in the following manner :

Take half a pint of good Wine, two drams of good Cinamon bruised, half a dozen Cloves, with four ounces of Sugar ; put them together in a Silver Porenger, and cause them to boile upon a Chafin-dish of coals, burn it, and afterwards boile it to the consistence of a Syrup, which let the Woman take at night, an hour or two after a light supper. It must alwayes be observed from whatsoever cause the Cough proceeds, that the Woman go loose in her clothes, for being strait-laced, the Womb is the more thrust down, by the endeayours the Cough causeth it to make. And because sleep is very proper to stay deffluxions, it may be procured (if there

be occasion) by some small Julip, using by no means the strong Stupratives, which are dangerous to a Woman with Child, if there be not a very great necessity, as there was in my Kinswoman, who had furious accidents by the hurt she got from the stumble, of which I gave you an account in the 12th Chapter of this Book.

There are Women that carry their Children so high (especially their first, because the large Ligaments which support the Womb are not yet relaxed) that they think them to be in their Breast, which causeth so great an oppression and difficulty of breathing, that they fear they shall be choaked as soon as they have either eaten a little, walked, or gone up a pair of Stairs : which comes (as I said before) by reason the Womb is much enlarged, and greatly presseth the Stomach and the Liver, which forces the *Diaphragma* upwards, leaving it no free liberty to be moved, whence is caused this difficulty of breathing. Sometimes also their Lungs are so full of blood, which is driven thither from all parts of the body when with Child, that it hardly leaves passage for the air : if so, they will breath more easily as soon as a little blood is taken from the Arm, because by that means the Lungs are emptied and have more liberty to be moved : But if this difficulty of breathing comes from a compression made by the Womb against the *Diaphragma*, in forcing the parts of the lower Belly against it : the best remedy is to wear their clothes loose about them, and rather eat little and often, than to fill their Bellies too much at once : because it is thereby more pressed against the *Diaphragma*, and so augments the accident. Neither must the use any viscus or windy meats,

meats, as Pease, &c. but only such as are of an easie digestion : she must all the while avoid any occasion of grief and fear, because these two passions drive the blood to the Heart and Lungs in too great abundance, so that the Woman, who can hardly already breath, and hath her Breast stuf, will be in danger of being suffocated : for the abundance of blood filling at once and above measure the Ventricles of the Heart, hinders its motion, without which one cannot live.

CHAP. XVI.

Of the swelling and pains of the Thighs and Legs.

IT is very easie for them that are acquainted with the Circulation of the Blood, to conceive the reason why many big-bellied Women have their Legs and Thighs swelled and pained, and sometimes full of red spots, from the swelling of the Veins, all along the inside of them, which extreemly hinders their going. Many think (which is in some measure true) that the Woman having more Blood than the Infant needs for its nourishment, Nature, by vertue of the expulsive faculty of the upper parts, which are alwayes most strong, drives the superfluity of it upon the lower, which are the Legs, as most feeble and aptest to receive it, because of their scituation : to explain it thus is something to purpose ; but I think the Circulation of the Blood will teach us better how this comes, than that we need to have recourse to this expulsive faculty,

It is then thus, according to my opinion, Following the ordinary motion of the Blood, the Crural and the Saphene Veins receive into them what is brought to the lower parts by the Arteries, and convey it along the Leg and Thigh, ascending still by the *Iliack* towards the Heart, which are emptied, into the *Cava*, to ascend again by it to the Heart, and so successively. This being so *de facto* (as need not be doubted, since it is a verity founded upon experience) when a Woman is with Child, and chiefly towards the last months, and the Womb is much extended, and possesseth a great part of the lower Belly, then it begins to press the *Iliack* Veins by its greatness, and heaviness, and so hinders the Blood, from following its course, and having its motion so free, as before she was with Child; which being so, the inferior parts, which are the Crural and Saphene Veins, become swelled, much in the same manner as the Veins of the Arm do upwards when bound with a Ligature for bleeding, or by any strong compression upon the upper parts; which happens, because the Veins being compressed, the Blood is there stop't, finding its passage more difficult. The *Iliack* Veins being then so pressed by the bigness and heaviness of the Womb, all those of the Legs and Thighes swell in such a manner, as that they empty themselves into the substance of the parts, and throughout the five Coverings, which thence become swelled; yea and these Veins, and amongst the rest the Saphenes, dilated and become varicose, sometimes from the inward and upper parts of the Thigh to the very extremity of the Foot, in which the Blood stagnating without its free circulation, is altered and corrupted, which causeth great pains

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pains and swellings in all these parts. This often befalls Women that are very sanguine, walk much, and use great exercise, which aided with a fulness of the Vein, makes a rupture of the Valvules, which serve to facilitate the motion of the Blood; as the suckers of a Pump, which retain the water when it is raised thither: which Blood falling down again, not being so supported, causeth by its quantity and stay, these dilatations of the Veins, which are called *Varices*.

For to remedy this, when a Woman hath her Veins dilated, let her only use, whilst she is with Child, a palliative cure, in swaithing this *Varicos*-part with a swaith three or four fingers broad, according to the bigness of it, beginning to swaith from the bottom, and conducting it upwards to the beginning of the *Varices*, that by this means these *varicos* Veins, which are alwayes outward, being moderately closed, should be hindred by this compression from further dilating, and the Blood not be corrupted by the stay it makes there, which after this will not want its circular motion, because the greatest part of it passeth then by the Vessels deeper placed. A Woman in this condition should likewise keep her bed, if she can, because by this situation, her body being equally layed, the Blood circulates much the easier, and is not then so much troubled to return by these Veins to the Heart, as when it must ascend by them, the Woman standing upright; which is the cause the Legs alwayes are more swell'd at night than mornings: if there be in any other parts of the Body signs of plenitude and abundance of Blood, they may bleed her without danger.

There are other Women, whose Legs only swell because of their weakness, and not for the reason just above mentioned, and are so *oedematous*, that when you press them with your Finger, the print of it remains there; which is, because they want natural heat sufficient to concoct and digest all the nourishment, sent to them, and to expell the superfluities of it, which by that means remaining there in great quantity, leaves them so *oedematous*. For, to resolve these sort of Tumours, you may use a Lee made with the Ashes of Vines, and the Decoction of Melilot, Camomile and Lavender; afterwards they may be fomented with Aromatick Wine, in which they may moisten their compresses to be laid upon them, repeating them three or four times a day to fortifie them; which may be made with Rosemary, Bayes, Tyme, Marjoram, Sage, and Lavender, of each an handful; of Province-Roses half a handful, Pomegranat flowers and Alum, each an ounce; boil them together in strong Red-Wine, three pints, to the consumption of a third part, strain it, and keep it for the use above mentioned. But since Pregnancy for the most part causeth these tumours, they likewise ordinarily cease when the Woman is brought to bed, because then she purgeth forth the superfluity of her whole habit by means of her *Lochia*.

CHAP. XVII.

Of the Hemorrhoids.

THe menstuous Blood, that used to be purged away every month, being collected in a great quantity near the Womb (which permits it not now to be evacuated by the usual passage, being so exactly closed during Pregnancy) is forced to flow back into the whole habit, and chiefly upon the neighbouring parts of the Womb, and causeth in many the Hemorrhoids both internal and external. All the several sorts of them, which we shall not describe, may as well happen to them at this time as at another: but we will only speak of that sort which is caused by pregnancy, because our design is only to make known some particulars of the maladies Women are in this condition subject to.

Hemorrhoids are tumours and painful inflammations, ingendred by a flux of humours upon the extremities of the Hemorrhoid Veins and Arteries, and are caused in great-bellied Women by the abundance of Blood which is cast upon these parts, because the body at this time is not purged of its superfluities, as it was accustomed before: It is likewise very often caused by the great endeavours that Women sometimes make to go to stool when they are costive; because the Womb being placed upon the *Rectum*, hinders by pressing it, the excrements contained in it from being easily extruded; and by these endeavours the Blood, which is in the neighbouring Vessels, being likewise expressed, swells and
blows

blows up their extremities, upon which comes these painful inflammations, call'd Hemorrhoids, of which some are internal, some external, some small and with little or no pain, and some extreamly big and painful. This may suffice for their general differences, without coming to their particulars, which would require a more ample explication.

If they are small and without pain; either internal or external, it is easie enough to prevent their further growth, by Remedies, which hinder and turn the flux from those parts: but there is more reason to cure the great and painful ones, by easing first the great pain, for as long as that continues the Flux is ever augmented. To this purpose, if the big-bellied Woman have in the rest of her body other signs of repletion, she may safely be once let blood in the Arm, and sometimes (if there be great necessity) twice, for to turn away the humours, and to evacuate the fulness, by which the pain will likewise be appeased: If the gross excrements retained in the right Gut be the cause of it, and that she be costive, let her take an emollient Clyster of the Decoction of Mallows, Marshmallows, Pellitory, and Violets, with Hony of Violets, to which may be added, Oyl of sweet Almonds, or sweet Butter; being careful to add nothing that may irritate, lest it augment the Disease, especially when they are inward Piles: And to the end the Women may then the better receive the Clyster, tis fit that a small end of a Pullets gut be put upon the end of the pipe, to cover it on the outside, that so it may be put up the Fundament with less pain, afterwards let her keep a moderate and cooling diet, and continue in bed till this flux of humours be passed, and the mean time

time anoint the Piles with hot stroakings from the Cow, or foment them with the Decoction of Marsh-mallows, White-broth, and Linseed : Oil of sweet Almonds, Poppies, and Water-Lillies well beaten together with the yolk of an Egg, and ground in a leaden Mortar, are very anodine and proper to ease pain ; and if the inflammation be great, anoint it a little with *Unguentum Refrigerans Galeni*, and *Populean*, equally mixed.

After a good diet, bleeding, and the application only of these cooling and anodine Remedies (Repercussives being not then to be used, lest they repel the impure Blood, or harden the Piles) if their swelling doth not abate, Leeches must be applied, to draw and empty the Blood there gathered ; or they may be opened with a Lancet, if soft, or any kind of inundation : but Leeches is more proper for hard Piles, and as it were fleshy, because they do not put one to so much pain as the Lancet : Although some men by the help of these Piles, have an evacuation, almost natural, being relieved by it when they bleed moderately, Nature being accustomed to it : yet it is not so in Women, but alwayes contrary to Nature ; because the evacuation which happens to those men by the Piles, ought always to be made by the Womb in Women, if not with Child : but if they are, it may in some manner, in case the Woman be plethorick, supply also the defect of the natural ; for, provided they bleed moderately and without pain, she may thereby be also relieved : but if they flow in too great quantity, there is danger that both Mother and Infant will be weakened by it ; and to avoid it, 'tis convenient to make astringent Fomentations with
the

the Decoction of Granat flowers, the rinds of Pomegranates and Province-Roses, made with Smiths-water and a little Alum; or this Cataplasm may be applyed to it, made with Bole-armonack, Dragons-blood, and *Terra Sigillata*, with the white of an Egg: As also to turn back the Blood from these parts by bleeding in the Arm, and by dry cupping-glasses, applied to the region of the Reines, and other remedies convenient for this distemper, and such as the accident requires.

CHAP. XVIII.

Of the several Fluxes which may happen to a Woman with Child, and first of a Looseness.

THree several Fluxes may befall a great-bellied Woman, to wit, the Flux of the Belly, the Flux of the Terms, and Floodings. We shall first speak of the Flux of the Belly, and afterwards we will examine the other two, in the two following Chapters.

There are ordinarily reckoned three sorts of Loosenesses, which in general is a frequent dejection of what is contained in the Guts, by stool: the first is called *Lienteria*, by which the Stomach and the Guts, not having digested the nourishments received, lets it pass almost quit raw. The second is called *Diarrhea*, by which they simply discharge the humours and excrements which they contain. And the third, which is the worst, is *Dysenteria*, by which the Patient, together with the humours and excrements, voids Blood with violent pains, caused by the ulceration of the Guts. Of

Of what kind soever the Flux is, if it be great, and continue long, it puts the Woman in great danger of miscarrying; which *Hippocrates* tells us in the 34th Aphorism of his 5th Book: *Mulieri in utero gerenti, si alvus plurimum profuat, periculum est ne abortiat*. For, if it be a *Lienteria*, the Stomach not containing the Food received, and letting it immediately pass away before it be turned into Chyle, of which Blood ought to be made for the nourishment of Mother and Child, it is not possible but they must be both thereby extremely weakened for want of nourishment: If it be a *Diarrhaea*, and continues long, it will occasion the same accident; because there is a great dissipation of the Spirits, together with the evacuation of humours: But the danger is much greater when a *Dysenteria*, forasmuch as the Woman hath then great pains and gripes in the Guts caused by their ulceration, which excites them continually by constant stimulations to discharge themselves of the sharp and bilious humours, with which they are extremely annoyed; which causeth a great disturbance and violent commotion of the Womb, being placed upon the right Gut; and to the Child contained in it; and by the compression which the Muscles of the Belly make on all sides, as also those that are made by them of the *Diaphragma*, which force themselves downwards in the endeavours a Woman makes so often to go to stool with pain, the Child is constrained because of this violence to come before its time, which arrives so much the sooner, by how much these stimulations and needings are greater, as the same *Hippocrates* notes in the 27th Aphorism of his 2th Book, *Mulieri utero gerenti, si sentio supercarnit*,

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erit, facit abortum. If there happens a tenesme (saith he) to a Woman with Child, it make her miscarry. This tenesme is a great passion of the right Gut, which forceth it to make these violent endeavours to discharge it self, without being able to avoid any thing, but cholerick humors mixt with Blood; with which it is continually irritated.

When this Flux of the Belly happens to a big-bellied Woman, it is ordinarily, because they have alwayes the digestion of their stomach weak, by reason of their bad dyet, which their strange appetites cause them often to long for: by the continual use of which being at length weakned, it suffers the food to pass immediately without digestion; or if it stay longer, it is converted into a corrupted Chyle, which descending into the Guts, irritates them by its acrimony to discharge themselves as soon as they can.

Now to proceed safely to the cure of these different Fluxes of the Belly (to which 'tis fit care should be taken in good time, lest the Woman miscarry, as we have already said) the nature of it must be considered, to the end the cause, which maintains it, should be remedied. If it be a *Lienteria* following (as is usual) continual Vomings, which have so debilitated the Stomach, and relaxed its membranes, that having no longer strength to vomit up that food, it suffers it to pass downwards without digestion: In this case a Woman must abstain from all those irregular appetites, and accustom her self to good food of easie digestion, and little at a time, that so her Stomach may be able the easier to concoct and digest it; she should drink a little deep Clarer-Wine, mixed with Water in which Iron hath been quenched,

quenched, instead of *Pysan*, which is not proper in this case, provided she have not a strong Feaver; for if it be but a small Feaver, Wine on this manner is to be preferred, forasmuch as the fever she hath at that time, is but symptomatick, caused by this debility of Stomach, and will vanish as soon as this is fortified; which will be yet more promoted, if the Woman before and after meals takes some Corroberatives, as a little of that Burnt-Wine we mentioned for the Cough in the 15th Chapter of this Book; or a little good Hippocras, or right Canary, of any of them according to her pallat; neither will it be amiss if she eats a little good Marmalade of Quince before meals: She may likewise wear upon the pit of her Stomach a Lamb-skin with the wool, for to preserve it, and augment its natural heat, which is very necessary to digest food; observing above all, to give no purging Medicine, when this Flux is only caused by weaknes, lest it be thereby augmented.

If it be a *Diarrhea*, and only an evacuation simply of such excrements as are retained in the Guts, and some superfluous humours, which Nature hath sent thither to be expelled, and that it continue no long time, and is gentle; the Woman will find no inconvenience by it; nor is there that danger as when it passeth those bounds; and therefore 'tis good to leave the operation to Nature, without interrupting it in the beginning: but if it continues above four or five days, it is a sign then, that there are ill humours contained and cleaving to the inside of the Guts, which provoke them often to be discharged, and ought to be removed with some purging Medicine that may loosen and evacuate them,

after

after which the Flux will certainly cease, some light infusion of Senna and Rubarb, with Syrup of Sycory, or an ounce of *Diacatholicon*, with a little Rubarb for a Bolus, to be taken in a Wafer.

But if, notwithstanding fit purges and a regular diet, this flux continues, and changes into a *Dysenteria*, the Patient voiding every moment bloody stools, with much pain and needing, she is then in great danger of miscarrying, & its prevention ought it be endeavoured, if possible. Therefore, after having purged away the ill humour, (with the Medicines above mentioned) which were in the Guts, and hindering, by a good dyer, that no more be engendred; to which purpose let her use good broths made of Veal or Chicken, with cooling Herbs, temper the acrimony of these hot humours; let her eat Pap with the yolk of an Egg new layed, being well boiled: such dyer softens and sweetens the Guts within. Let her drink be Water, in which Iron or Steel was quenched, with a little Wine, if she be not feverish, for then half a spoonful of Syrop of Quince or Pomegranats is better to mix with the foresaid Water; She may likewise eat a little Marmalade of Quince, or other astringents and strengtheners, provided her body was well purged before: and because there is always in these Fluxes great pains and gripes all over the Belly and Guts, and chiefly the *Rectum*, all the humours being discharged upon it, which irritating it extreamly, causeth continual stimulations, that ought to be appeased (if possible) to prevent Abortion, and may be effected by Clysters made of the Broth of a Calves-head, or Sheeps-head well boyled, mixing it with two ounces of the Oyl of Violets, or else

of good Milk, mixed with the Yolk of a fresh Egg. After the use of these strengthening and anodine Clysters, as long as is judged necessary, which the Patient ought to keep as long as she can, the better to appease these pains, you must proceed to the use of Deterfives, made with the Decoction of Mallows and Marsh-mallows, with Honey of Roses; and afterwards Astringent Clysters, in which must be neither Oyl nor Honey mixed, because they relax instead of binding; beginning first with the gentlest, made with Rose-water, mixed with Lettice and Plantain-water; afterwards to stronger, composed with the Decoction of the Roots and Leaves of Plantain, *Tapsus Barbatns*, Horse-tail, with Provence-Roses, the rind of Pomegranats in Smiths-water; to which may be added, of *Terra Sigillata*, and Dragons-blood, each two drachms: You may likewise foment the Fundament; but there must be care, before you come to use the strong Astringents, that the Woman be first well purged with the Remedies before mentioned, lest (as the Proverb is) the Wolf be shut in with the Flock; and, endeavouring to prevent Abortion, the death of the Mother, and consequently of the Child, be caused by a greater mischief; retaining within a-bundance of ill Humours, of which Nature would willingly be discharged: All which may be avoided, if what I have said be well observed.

C H A P. XIX.

Of the Menstruous Flux.

Hippocrates, in the 60th Aphorism of his 5th Book saith, *Si Mulieri utero gerenti Purgationes prodeant, impossibile est foetum esse sanum*; If a big-bellied Woman have her Courses, it is impossible the Infant can be in health. This Aphorism must not be taken literally, but must be understood when they come down immoderately: for though, according to the most general and natural rule, the Courses ought not to flow when a Woman is with Child, because their ordinary passage is stopt, and also because the Blood is then employed for the nourishment of the Infant, of which, if it flows away, it is defrauded, and consequently much weakened: Yet there are some Women, who notwithstanding they are with Child, have their Courses till the 4th or 5th month; about which time, the Infant being already pretty big, draws a good quantity of blood for its nourishment; wherefore there cannot so easily remain a superfluity, as when young with Child. I knew one that had four or five living Children, and had, of every Child, her Courses duly from month to month, as at other times, onely in a little less quantity, and was so till the 6th month; yet notwithstanding, she was alwayes brought to bed at her full time. I likewise saw another, who not believing she was with Child, because she had her Courses; and
finding

finding her self out of order, because she had conceived, imagining it was some other Distemper, prevailed with her Physitian to bleed and purge her very often, which he did, till he had indeed cured her; but 'twas after she had miscarried, being three months gone. This evacuation usually befalls very Sanguine or Phlegmatick Women, who breeding more blood than the Infant hath need of for its nourishment at the beginning, discharge themselves at those times of that superfluous quantity, more or less, according to their dispositions, but not by the bottom of the Womb, as formerly when they were not breeding, because those passages are effectually closed by the after-birth which adheres to it, and the Womb is then exactly close; but by a couple of Branches which Nature (provident and careful of the preservation of Individuals, as well as of the Kind) hath destined to this use, which proceed from the Spermatick Vessels, and (besides those they send to the Testicles and other parts) before they arrive at the Womb, divide themselves on each side into two Branches very considerable; of which, the one terminates in the Fund of the Womb, by which the Courses pass, when the Woman is not with Child; and the other, not entering there, couching along the body of it, is terminated in the side of the neck of the Womb, by which the Courses are discharged, whilst they are breeding, in case the Woman be Plethorick.

When a Woman voids blood downwards, it must carefully be considered whence it proceeds, and in what manner; whether it is the ordinary Courses, or a real Flooding: If it be the ordinary Courses, the blood comes away periodically at the

accustomed times, and flows by degrees from the neck, near the inward Orifice of the Womb, and not from its Fund ; as may be discovered, if trying with a finger one finds the inward Orifice exactly closed ; which could not be, if the blood proceeded from the bottom, as also if it proceeds without pain ; all which circumstances do not meet in a flooding, but others very different, as will appear in the following Chapter. It must likewise be considered, whether these Courses flow, onely because of the superfluity, or because of the acrimony of the Blood, or the weakness of the Vessels which contain it, that so fit Remedies may be applied. If they proceed from the sole abundance, being more than the Fruit can consume for its nourishment, it is so far from hurting either Mother or Child, that being moderate, it is very profitable to them ; because, if the Womb were not discharged of this superfluous blood, the Fruit which is as yet but little, would be drowned by it, or, as it were, suffocated : And if it should chance that they were unduely stopt or retained, bleeding will supply the defect of the natural evacuation, which ought to have been ; but if there be no sign of abundance or plenitude ; and that before she was with Child, she had her Courses in a small quantity, which still continue to flow, after she hath conceived, it is a sign that the flux proceeds from the heat and acrimony of the blood, or the weakness of the Vessels appointed to receive it. It is of this sort of Women that *Hippocrates* pretends to speak, in the 6th *Aphorism* before mentioned, whose Children cannot be healthful, when their Courses flow, whilst they are breeding ; because there remains not blood
enough

enough behind for her, and the nourishment of her Infant, which puts her in great danger of miscar-
rying, for as the proverb saith, *Hunger drives the
Wolf out of the Wood*; so likewise want of nourish-
ment forceth the little prisoner out of his hiding-
place before his time.

To hinder this Flux from effecting so evil and si-
nister an accident, the Woman must keep her self
very quiet in bed, abstaining from all things that
may heat her Blood, shunning Choler above all the
passions of the mind, using a strengthening and a
cooling diet, feeding on meat that breeds good
Blood, and thickens it; as are good broths made
with Poultry; necks of Mutton, knuckles of
Veal, in which may be boiled cooling Pot-herbs;
newlayd Eggs, Gelly's, Rice-milk, Barly-broths,
which are proper for her: let her Drink be Water
in which Iorn is quenched, with a little Syrup of
Quince: she must refrain from Copulation, be-
cause by heating the Blood it excites it to flow more.
If notwithstanding all this the Flux continues, some
commend large cupping-glasses under the Breasts to
make a revulsion, and to turn the Blood: according
to *Hippocrates* Aphorism 50 of the 5th Book, *Mu-
lieri si velis menstrua sistere, cucurbitulam quam
maximam ad Mammæ appone*: but it will do no
great matter; however, to satisfy the Patient, and
to shew that nothing is omitted that may make for
her cure, they may be applied. I should rather
choose to make this Revulsion by bleeding in the
Arme, if her strength permitted: And because in
this condition the Child is very weak through this
great evacuation, it must be fortified by applying
to the Mothers Belly about the region of the Womb,

Compresses steeped in strong Wine, in which is boyled a Pomegranat, with its peel, Provence-Roses, and a little Cinamon: but the best way to strengthen it, is to correct the Mothers Blood, and hinders its evacuation.

C H A P. XX.

Of Floodings.

THere is a great difference between the menstuous Blood, of which we have discoursed in the preceeding chapter, which happens sometimes to Women with Child, and this Flooding which we have now in hand: for (as I have said) the Courses come periodically at the times accustomed, without pain, destilling by little and little from the neck of the Womb, during pregnancy, after which it totally ceaseth: but much the contrary, this loss of Blood comes from the bottom of the Womb, with pain, and almost of a sudden, and in great abundance, and continues flooding daily without intermission, except that some clods (formed there) which seem sometimes to lessen the accident, by stopping for a little time the place whence it flows; but soon after it returns with greater violence, after which follows death both to Mother and Child, if not timely prevented, by delivering the Woman, as shall be hereafter declared.

If this Flooding happens when young with Child, it is usually because of some Fals-conception, or Mole, of which the Womb endeavours to discharge it self, by which it opens some of the Vessels

Vessels in the bottom of it, from whence the Blood ceaseth not to flow, until in hath cast forth the strange bodies it contained in its capacity: and the hotter and subtiller the Blood is then, the more abundantly it flows. But when this Flooding happens to a Woman truly conceived, at whatsoever time it be, it proceeds likewise from the opening of the Vessels of the fund of the Womb, caused by some blow, slip or other hurt, and chiefly becaule the *Secundine* in such cases, and sometimes in others, separating in part, if not totally, from the inside of the bottom of the Womb, to which it ought to adhere, that it might receive the Mothers Blood, appointed for the Infants nouriture, by which separation it leaves open all the orifices of the vessels where it was joyned, and so follows a great flux of Blood, which never ceaseth (if so caused) till the Woman be brought to bed: for the *Secundine* being once loosened, although but part of it, never joyns again to the Womb to close those Vessels, which can never shut till the Womb hath voided all that it contained: for then compressing and closing its self, and as it were entering within it self (as it happens presently after delivery) the orifices of the vessels are closed and stopt up by this contraction, whereby also this flooding ceaseth, which alwayes continues as long as the Womb is distended by the Child, or any thing else it contains, for the reason aforesaid: much like to a Sponge, whose pores or holes being very large when swelled, disappear and close with their own substance when squeezed and compressed; so likewise by this contraction of the Matrix (which during pregnancy became as it were spongy) in the place whence the *Secundine* was

separated, the orifices of the vessels are closed, as soon as it is cleansed from whatsoever it contained in its capacity.

Although I have said that a Woman in this condition, for the reasons alledged, must necessarily be delivered, that the Flooding may be stopt; I do not intend it should be done as soon as perceived: because some small Floodings have sometimes been suppressed by keeping quietly in bed, bleeding in the Arme, and the use of the Remedies specified in the precedent Chapter; it may likewise be but an ordinary and menstruous Flux. If then the Blood flows but in small quantity, and continues a little while, 'tis good leaving the labour to the work of nature, provided the Woman hath sufficient strength, and that it be accompanied with no other evil accident: but when it flows in so great abundance, that she falls into Convulsions and Faintings, then the operation must not be defer'd; and 'tis absolutely necessary she should be delivered whether she be at her reckoning or no, whether she have pains or throws, or not; because there is no other way to save her life, and the Childs, then presently to do it. *Extrema fundet cum sanguine vocem*; she casts forth with her Blood her last breath. *Hippocrates* knew very well the danger of it, when he said in his 56th Aphorism of the 5th Book, *In fluxu muliebri si convulsio & animi defectus advenerit, malum*: If Convulsions and Faintings follow Floodings, it is a bad sign.

There must not always in these unfortunate accidents be expected pains and throws to force and bear down to forward labour; for though they come at the beginning, they usually cease as soon as the

the Flooding comes to *Syncope's* and Convulsions ; neither must it be defer'd, till the Womb be enough opened, forasmuch as this effusion of Blood very much moistens it, and the weakness relaxeth it, so that it may be then as easily dilated as if there had been abundance of strong throws. Wherefore, having placed the Woman in the situation we shall direct when we treat of deliveries, let the Chirurgeon, having his hands anointed with Oyle or fresh Butter, introduce his Fingers joyned together, by degrees into the Matrix, and spread them open the one from the other when they are in the entry, for to dilate it sufficiently by little and little, without any violence, if possible ; which being done, and his hand quite within, if he finds the Waters not broke, let him break them, and then, whatsoever part of the Child presents, though the Head (provided it be not just in the Birth) let him search for the Feet, and draw it forth by them (observing every circumstance, that shall be shewen in the 14th Chapter of the second Book, where is described the way how to deliver a Woman, the Child coming with the Feet first) because there is better hold, and more easie to deliver by them, than by the Head or any other part of the body. Wherefore if the Feet lie not ready, the Chirurgeon must seek for them, which at that time is easier done than at another, because the great Flooding makes the Womb loose and slippery by its humidity, so that it will not be difficult for him to turn the Child and bring it by the Feet, as we have even now said ; after which he must fetch the after-burthen, which in these cases cleaves but little, being careful not to leave so much as a clod in the Womb, lest it still continue the Flooding,
which

which being done, it will soon after stop with all the accidents, if too much time was not spent before the operation.

Many Women and Children have perished for want of this operation in this ill accident; and many others have escaped death, (which else most certainly had followed) by being timely succored.

Guillimen in Chap. 13 of his 2d Book of happy Deliveries, makes mention of six or seven Histories to confirm this verity, in some of which we may find the Women and their Children bloody victims of it, for not having been in the like case delivered, which others, by a seasonable delivery, escaped; and the better to confirm it by my own experience, I will recite you one amongst the rest, very remarkable, of the remembrance of which I am so sensible, that the Ink I write with at present to publish it to the World for their profit, seems to me to be Blood, because in this sad and fatal occasion, I saw part of my self expire.

About three years since one of my Sisters, not yet one and twenty years of age, being about eight months and a half gone with her fifth Child, and then very well in health, was so unfortunate as to hurt her self (though at first small in appearance) by falling on her Knees, her Belly a little touching the ground by the fall, after which she passed a day or two without perceiving any great alteration, which made her neglect to repose her self, being very necessary for her; but the third day, or thereabouts, after her hurt, about eleven in the morning, she was suddenly surpris'd with strong and frequent pains in the Belly, which were immediately followed with Floodings; this made her pre-

presently send for her Midwife, who no better understanding her Office, told her she must have patience, till the Womb had dilated it self by the pains, before she could be delivered, assuring her further that she had no reason to be afraid, and that she should be quickly freed from the danger, because her Child came right: she made her thus hope in vain three or four hours, until, the Flooding still continuing violently, the pains began to cease, and the poor Woman fell into frequent faintings, and then the Midwife desired a Chiurgeon to advise with in this case: they immediately sent to my house for me, but unfortunately missing of me, they sent for him, whom they judged the ablest of all the Chirurgeons that practised Midwifery in Paris, and immediatly conducted him to my Sisters, where he arrived about four in the

afternoon, and having seen her,*contented himself with only saying, *she was a dead woman, and that nothing was to be done to her, but to give her all the Sacraments, and that absolutely she could not be delivered;* which likewise the Midwife joyntly concluded, who believed that

** It were to be wish'd rather than hoped for, that Practitioners in this and other the like dangerous cases (whereof they have no certain knowledge) would consult, and not destroy one or more, by undertaking what they cannot well perform, or discourage Patients from sending for other help and advice; putting Life in ballance with their Reputation.*

the opinion of a Man so authentickly esteemed of all, must be infallible. Assoon as he had delivered this Prognostick, he immediately returned home, and would by no means stay any longer,* but left this young Woman in that deplorable condition without any succour, whose life he had certainly saved with

with her Childs, if he at that time had delivered her, which was very easie to be done, as will plainly appear by the sequel of the History. After the advice of a person of so great reputation, together with that of the Midwife,

** The great mischiefs which happen by the Prognosticks of such who have the luck, though they want the merit to be esteemed.*

since Monsieur N. * could do nothing, there was no other remedy for so great a danger, but to hope in God alone, who was Almighty. They therefore endeavoured to comfort my poor Sister as well as they could, who longed for nothing more then to see me, to know whether I would pass the same sentence, and whether her danger, which still augmented more and more, was without remedy (for her Blood flowed away continually in great abundance) At length I returned home, where they had been long before to tell me this bad news, though by misfortune could not find me (as I said before) which as soon as I understood, I immediately hastened to her with all possible speed, where I saw as soon as I came in, so pittiful a spectacle, that all the passions of my Soul were at the instant agitated with many and different commotions; having afterwards a little recovered my senses, I drew near to my Sisters Bed, where they had just given her the last Sacraments, and she conjured me very often to give that succour, which she said she only expected from me. After that I had understood from the Midwife all that had passed, and the opinion of the Chirurgeon, that had seen her above two hours before (for it was then fix a clock) I perceived the Blood

to flood continually in great abundance and without intermission, of which she had already lost above * three quarts: **French quarts* and which was very remarkable, *are English* above twelve small Porengers, in *potles.* the two hours after the Chirurgion was returned, as it seemed to me by the number of Napkins and other Clothes, which were all muck wet with it; which Blood had stayed in her body and saved her life, if she had been then delivered: I saw likewise that she grew every moment weaker and weaker, which convinced me that she was then in more danger than she would have been if they had not let slip the opportunity of delivering her two or three hours before, as it was possible and easie; because she had then almost all her strength, which she afterwards lost with the rest of her Blood, which all along flooded away; and desirous to know whether they could have delivered her, I found, by trying her body, that the inward orifice of the Womb was dilated in such sort that I could easily introduce two or three fingers, and having marked it, I made the Midwife try again to see whether the orifice was so disposed when the Chirurgion said that she could not be delivered, and whether she was of his opinion. She told me it was so, and that it had been alwayes in the same condition from the time of his departure. Assoon as she had made me this declaration, I easily perceived his ignorance, and where the shoe wring'd him.

Wherefore I told her, that I woundred much they were both of that opinion, seeing that in truth it seemed quite contrary to me, because it was at that time most certainly very easie for him to have delivered

delivered her, if he had pleased, as it still was, & what indeed I would have done at that very moment, if it had been possible for me to have had power enough over my Spirit, which wavered a long while about the resolution I was constrained to take, after I had lost the hopes of all other help. That which hindered me, was not so much the Prognostick, that so famous a Chirurgeon had made, in perswading all the Assistants, that she could not be delivered, (though it might seem rash to oppose the sayings of such as are esteemed Oracles) neither was it the little strength the Patient had then left: but it was chiefly the relation of the Person, being my Sister, whom I tenderly loved, which troubled my spirits with such different passions, to see her before me ready to expire through the prodigious loss of blood, which proceeded from the same spring as mine own, that it was impossible for me at that moment to resolve, and obliged me to send again to the Chirurgeon (who was long since returned home) to entreat him to come back again to the House, that (my self demonstrating to him the facility I found for the operation, and making him understand and confess that in those cases there is no hope, unless it be undertaken as soon as may be) I might perswade him to deliver her, rather than to abandon the Mother, so to the despair of her life, as he had done, and to suffer the Infant to perish with her unbaptized; which had been prevented if he had done what Art required, which is at least (when both cannot be saved) to save the Child, if possible, without prejudice to the Mother, which was very easie, as you shall presently understand: But no prayers nor solicitations could ever prevail with him

to return, excusing himself that it was impossible for him to do any thing in the case. When this was related to me, I sent yet again to another Chirurgion, one of my Companions, being a little more obliging and servicable, whom, if he had come time enough, I would have convinced of the necessity of the operation, and made him acknowledge the facility of it : but by misfortune he was abroad. During all these goings and comings, there was an hour and half spent, which time she flooded without intermission, and her weakness grew more and more : wherefore seeing my self without hopes of getting the persons I sent for, I resolved to deliver her presently, which before was beyond my power, for the reasons recited, and indeed was now a little too late for the Mother ; for, if I could have commanded my passions to have done it at the instant I arrived, there would then have been great hopes to have saved her, as well as I did the Child : After I had thus prepared my self for it, that is, having directed two of my fingers into the inner orifice of the Womb, being open enough to admit them into it, I did in a little while after introduce a third, and by degrees the ends of all the five of my right hand, with which I dilated the orifice sufficiently to admit it quite in, as it is very easie in the like cases, because the abundance of Blood moistens and relaxeth extreamly (as is already mentioned) the whole Womb, into which having so gently entred my hand, I found the Child came right, and the Waters not yet broken ; wherefore I presently broke the membranes with my nails and fingers, and then turning the Child, I took it by the feet, and brought it forth very easily, after the
man.

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in the 2d Book
manner I shall teach in the forementioned 14th Chapter of the 2d Book, all which I finished in less time than a hundred could be counted, and do conscientiously protest never to have delivered a Woman sooner in all my life, of those whose Children came against Nature, nor easier, and with less violence to the Mother, who did not in the least complain during the Operation, although she had her senses very well, and exactly knew all I did to her, and found her self very much comforted as soon as ever she was delivered, and immediately after the flooding began to cease: As to the Child I brought it alive, and it was presently baptized by a Priest that was in the Chamber. The poor Patient, and all the company present (which were in great number) found then manifestly that the Chirurgion and Midwife, who said she could not be delivered, had but little reason to assure any such thing.

The Operation was finished time enough for the Childs baptism, which (praised be God) it received; but too late to save the Mothers life, who (having before lost all her Blood) dyed an hour after she was so delivered, by the same weakness that she often fell into before she was delivered. The flooding indeed ceased presently, but she had not Blood enough left to enable her to resist those frequent faintings, which she might have done, as may probably be conjectured, if the Chirurgion that first saw her had delivered her three long hours before,

as without doubt he might as easily have done as I; in which time she lost above twenty * small porengers of Blood; of which four or five possibly might have been sufficient

* each Porenger
contains about
four ounces.

sufficient to have saved her life, she being a young Woman of a very good constitution, having no inconvenience or sickness when she was surpris'd with this fatal accident, which beset her (as aforesaid) about eleven in the morning, and she was deliver'd about seven at night; and because she had lost so much Blood before the Operation, it proved unprofitable, she dying an hour after, having her perfect senses to the moment she expired, which was about eight the same night.

I will upon this lamentable Subject (to the end more care may be taken in the like cases) examine by way of digression, what might be the motive of this proceeding of the Chirurgeon, and of some others of the same humour. It must necessarily be agreed, that it was for one or more of these three causes, why either he would not, or could not lay this Woman when he saw her two hours before me, which (as I noted before) might easily have been done: It was either through Ignorance, Malice, or Policy: To imagine it his Ignorance, I cannot persuade my self, because he hath too great Reputation for that, although many persons that understand the Art very well, easily agree with me, that he is of the number of those, of whom may justly be said, *Minuit presentia famam*. That it was through Malice, who can imagine a man of so detestable a resolution could be found!

but if it were neither Ignorance nor Malice, it is easy to guess it a damnable Policy, qualified by some with the name of Prudence; * this false Prudence they

* A good Warning not to rely too much upon the advice of such famous Practitioners, or Midwives, that prefer their Reputations above their Consciences.

H

ordina-

ordinarily use, that are in great reputation, ever endeavouring to their utmost to shun dangerous Cures, lest they that understand not the Art, should quit the good opinion they had of them, when it happens that the Patient dies under their hands, although they were carefully and duly delivered. This was just our misfortune; for this Chiurgeon, who was very much esteemed by many Women of quality whom he delivered, avoided, all he could, dangerous labours, subject to ill success, as this was; and the rather then, because there was in my Sisters Chamber a Lady of quality, Wife to one of the chief Captains of the Guards, who dwelt in the same house, and whom he ordinarily delivered; which was the cause, that, believing the issue of the Operation doubtful, he chose rather to preserve the esteem of his ancient practice, amongst such as understood not the business well enough to be judge of his proceedings, than to do in this case his Christian duty; to which one ought alwayes to have more regard, than to all these Interests of vain Reputation, which usually corrupts the Conscience. They that make use of this Policy are often accessory to the death of poor Women who call for their assistance, and of their Children also.

I was willing to recite every circumstance of this Tragedy, that one may know in the like case the necessity of a speedy delivery. I have since that had many in the same case, to whom (by the assistance of God) I warranted the lives of the Women, and saved the Children; of which I had in my self more satisfaction, than I could have gained by all the honour the World could procure me by so wicked a policy; which neither Chiurgeon nor

Midwife of an upright Conscience will ever use.

Now since in all floodings, there ever follows weakness and faintings, we must endeavour to preserve that little strength the Patient hath left, and augment it if possible; that so they may have sufficient to endure the operation, and to escape afterwards: to which purpose there ought to be given her, from time to time, good strengthening Broths, Gelly's, and a little good Wine: she must alwayes smel to Rose-vinegar, and have a warm toast dipt in Wine and Cinamon, applied to the region of her Heart; which will do her more good than solid food: for, as *Hippocrates* saith in the eleventh Aphorism of his second Book, *Facilius est potu resciri, quam cibo*, one is sooner nourished by drink than meat; becausetheliquidalimentsaremuchsooner distributed than the solid: And to prevent the

Blood from flooding in great abundance till she can be delivered, * a

Vein in her Arm may be opened, to turn a little the course backwards; and apply all along her Reins, Napkins wet in Water and Vinegar.

* Rather Ligatures above the elbows, because too much Blood is already lost.

But if the flooding proceeds from the separation of the after-burthen from the Womb, as my Sisters was, all these things are to little purpose; and the best expedient is to deliver the Woman assoon as may be, though she were but three or four months gone with Child, or less; because all ought as well to be brought away, whatever is within the Womb, whether it be Fall-conception, Mole, or Child, without leaving any thing behind, which when it is quite cleared, closing and contracting it self, stops the flooding, for the reasons above alledg-

ed, and all accidents which were caused by it; whereby the Woman afterwards recovers, if there be but sufficient strength remaining after delivery, as certainly will be, if not delayed too long.

CHAP. XXI.

Of the weight, bearing down, or relaxation of the Matrix, which hinders a Woman with Child in her walking, and the freedom of coition.

MAny Women with Child find an extraordinary weight at the bottom of their Bellies; which comes, because the Womb, by the weight it contains in its capacity, bears down upon the neck, and sometimes so low that they cannot walk without pain and straddling; at which time also they cannot use copulation but with great inconvenience.

The bearing down of the Womb, is when it only falls into the *Vagina*, without coming in the least without the Privities, for then it is called the falling-out, or *Precipitation*; which is a more troublesome and dangerous Disease, and doth not usually befall Women with Child, because the extent and bigness of the Womb hinders it, that it cannot fall out, but only bears down. The Precipitation is discerned by the view; and the bearing down easily, by putting up a Finger into the *Vagina*; for there the Womb will be soon met with, and its inner Orifice, which is very near the Privities, especially when the Woman stands upright.

This

This bearing down, is often caused by the relaxation of the ligaments of the Womb, and chiefly the large ones, which ought to fasten it on each side towards the loins, to prevent it; which relaxation comes either from the weight of the burthen it bears and contains within, which constrains these ligaments to be extended more than ordinary; or from some fall, which by much shaking of it produceth the same effect, and so much the easier, by how much the burthen is greater; and likewise from some great pains or bad labour which preceded the present pregnancy: or very often it is caused, or at least facilitated by abundance of humours, which moistening the ligaments, relax them in that manner, to which the phlegmatick are very subject, who usually are much troubled with the Whites.

Besides the hinderance which the bearing down of the Womb causeth to the Womans walking and use of coition (as we have above mentioned) it causeth likewise by its weight, principally towards the latter end of her reckoning, a numbness in her Hips, sleepiness in her Thighs, as also difficulty of Urine, and going to stool: because by bearing down it presseth down the Bladder and the great Gut, between both which it is situated. The Patient may be much easier cured of this bearing-down, after she is brought to bed, than whilst she is with Child; for being freed from its burthen, its ligaments will be the easier fortified: besides she may then use pessaries to keep it in its place, which cannot so well be done when she is with Child.

From what cause soever this bearing-down proceeds, the best remedy for a big-bellied Woman is to keep her bed, because the weight of it doth more

and more relax the ligaments when she is up : And if she have neither the means nor convenience so to take her rest, at least let her, if her belly be big enough, as it is towards the later end of her reckoning, wear a Swaith very broad and fit for the purpose, that by this means the burthen being a little supported, the ligaments may not be so much stretched and lengthened ; and if she have a difficulty in making water, let her when she would do it, help her self by lifting up with both hands her Belly before, which will be a great ease, and hinder the neck of the Bladder from being so much compressed : but if the humours cause this relaxation of the ligaments of the Womb, she must keep her self to a drying dyet, her food being rather roasted than boiled, and must refrain from copulation. The Woman must not be straight laced, because that also forceth down the Matrix : and above all, when she is in labour, care must be taken that neither by means of the throwes which strongly force down the Womb, nor by the birth of the Child, nor the violent extraction of the burthen, she gets a precipitation instead of a bearing down ; which is soon done, as is seen often, when the method I teach in the 16th chapter of the second Book (where I treat of this Labour) is not well observed.

CHAP. XXII.

Of the Dropfie of the Womb, and the œdematous Tumours of the Lips of the Privities.

THere are many phlegmatick Women, who certainly believe themselves with Child, void nothing but water, which was collected together in their Womb, and called the Dropfie of the Womb. It hath often happened that such a Disease hath deceived the Midwives as well as the Patient, who having a long time hoped, and been made to hope for a Child, at length instead of it, finds nothing but clear waters; as it once did to that Wood-merchant (I mentioned in the 13th chapter of this first Book) who at the end of nine or ten months, of such a false Belly, voided a quantity of these waters, which was all that was contained and inclosed in the Womb. *Gullemean* in the first chapter of his first Book of Labours, makes mention of the like History, of one named *Madam du Pescher*, who voided a pailfull of it, certainly believing her self to be with Child: And *Fernelius* in the 15th chapter of his 6th Book of *Pathologie*, recites a case much more wonderful concerning these Dropfies. He tells us that he saw a Woman who at the times of her purgations cast forth, by the neck of the Womb, a great quantity of water, very hot and yellowish, that she filled six or seven Basins, and voided so much of it that her Belly grew quite flat, after which her Courses came immediately in order; and that the following months the like quantity was a

gain amass'd, which afterwards came away as before, and that this Woman (which is most notorious) being cured of this indisposition, became with Child, and was brought to bed of a living Child.

These Waters are either bred in the Womb, or brought thither from some other part, as in the dropsie of the Belly it passeth by transudation through the porous substance of the membranes of the Womb. They are bred in the Womb, when it is too cold, or too much debilitated by an ill and violent Labour preceeding; or, because the filth, as Whites, or other superfluities which it was accustomed to discharge it self of, hath a long time been suppress'd. When the Waters contained in the capacity of the Womb have been sent thither from elsewhere, they are then never wrapt in a particular membrane, but only retained by the exact closure of its Orifice, and flows away as soon as it begins to open: but when they are bred in the Womb (which is for the most part after copulation, if the Seed be either too cold, waterish, or corrupted) they are then sometimes contained within membranes, which hinders the Patient from a speedy discharging of it, she going with it as long almost as with a Child: and this is the Dropsie which perswades them sometimes they are with Child.

'Tis easie to avoid being deceived by taking the Dropsie of the Womb for a Child, if one takes but good notice of all the signs mentioned, in treating of a true Conception, which concur not in this disease. The Patient hath indeed her Belly swell'd, and her Courfes stopt in this case as well as if she were with Child, but there are many things which will discover to us the difference; for in the Dropsie, her
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Breasts are flabby soft and fallen, she will have no Milk in them, nor find her self quicken at the ordinary time, but only as it were a bubbling of agitated Waters; she will have a greater pain and weight in her Belly, which is likewise more equally in its circumference extended, than if there were a Child; she will also have the Lips of the Womb, her Thighs and Legs swell'd & œdematous; and a worse colour in her Face, than when she is with Child. Now as this Dropsie may come alone, so likewise may often happen together with a true Conception, these Waters being then contained without the membranes of the Child in the capacity of the Womb; for though there may be much Water within these membranes, it is not properly the Dropsie of the Womb, because there must ever naturally be some, in the midst of which the *Fetus* is contained: Notwithstanding, sometimes there is such a quantity of them, which doth so prodigiously swell the Womans Belly, that one would believe she had two or three Children, when she hath but only one, which is much weakened by it, because the greatest part of its nourishment is resolved into these Waters, which almost extinguisheth and suffocates that little natural heat which is there. Some Women have evacuated three or four quarts above two months before they were brought to bed; when this happens, they are then contained in the Womb without the Membranes; for else the Child would be necessitated to be born presently after these Evacuations*, if it were the

* *That being the right time of Labour.*

membranes) that came away.

The

The best Remedy for this kind of Dropsy, the Woman being vvith Child, is to vvait vvith patience the hour of her delivery, observing the mean time a drying dyet: but vvhen it is only Water contained in the Womb, she must use Diureticks to cause the Womb to open to evacuate them; and her Courses must be endeavoured to be provoked, having alwayes a care to destroy by convenient Purges, the cause of the generation of such superfluties.

The Womb is sometimes so full of these humours, that it dischargeth some on the outward parts, and principally upon those vvhich are near, as the lips of the Privities, vvhich often are thereby so swelled, that they become quite blown up; and sometimes in some Women are so big and swelled, that they cannot close their Thighs together for them, vvhich hinders their vvalking, unless vvith pain and great inconvenience. This Swelling is then livid, and almost transparent, even as a *Hydrocele*; because of the quantity of clear Water vvhich filled it: and because it may be painful and inconvenient to the Woman during her labour, by reason they straiten the passages, it vvill be necessary to remedy it before; vvhich, for the greater certainty, must be done by the operation of the hand, making many scarifications vvith a Lancet all along the lips, vvhereby the humours vvill sweat out and distill forth by little and little; after vvhich Compresses dipt in Aromatick and Astringent Wine, must be put upon it to prevent Relapses, by fortifying the parts, causing the Patient to observe all the vvhile a good dyet fit for the Dropsie. Some vvould apply Leeches, to avoid the pain of the Lancet: but they are not so proper, because

because the small orifices they make, as soon as they are taken off, immediately close again, which happens not so soon to the Scarifications, made as big or little as one will; and may be kept open by ointments applied to them, as long as may be thought fit or necessary.

CHAP. XXIII.

Of the Venereal Disease in Women with Child.

IT is not very hard to imagine, how a breeding-Woman, that hath the *Pox*, can communicate it to a Child in her belly, because this contagious disease corrupting all the mass of the Mothers blood, it is necessary the Infant, which hath then no other sustenance, should be infected with it, converting this bad blood into its own substance, the acrimony of which Blood easily causeth in an Infants tender body those malignant ulcers, which all such, whose Mothers are contaminated with it, usually bring with them at their birth.

The *Pox* which in its essence is of the same species, and is only distinguished by degrees according as it is greater or less, communicating it self by the means of the Mothers blood, will make more or less impression on the Infants body according to its strength or weakness; and if the big-bellied Woman have Ulcers very near the Womb, as in the neck and neighbouring parts, by this proximity the venom will be very easily conveyed to it.

I do not design here to enquire into the bottom of

of this Venereal Disease, nor to write particularly of the cure of it : but intend only to shew vvwhether the Woman may undergo the Cure vv whilst with Child, or ought therefore to defer it till after they are brought to bed. That this may be the better determined, we must make some distinction ; for, when the Woman is towards the end of her Account, it ought to be deferred till after she is brought to bed, when both she and the Child, if infected, may be taken in hand ; because the labour coming on, when the Woman is in the midst of her Cure, she may run the hazard of her life : and besides, if the Child should be then still-born, one would be apt to think it was killed by the violence of the Medicaments, and blame the Chirurgeon of rashness.

When the *Pox* is but in the first degree, and hath caused no great accidents, one ought then likewise to remit the eradicating Cure till after Childbed, and be contented only with the palliating by a convenient dyet and gentle purgers from time to time, to prevent the evils encreasing : but if the Woman when young with Child, hath the *Pox* in the highest degree, accompanied with very great and continual accidents, which threaten danger, if her Cure be protracted till after Delivery ; because in so long a time these accidents augmenting more and more, it would be impossible but her Fruit should be corrupted, and very hard if she did not miscarry : that the greatest of these two evils be avoided, she having strength enough, ought to be taken in hand ; for, to imagine the worst, that the Remedies make her miscarry, it is no more than the greatness of the Disease would otherwise certainly do. Let her then

be taken in hand, without suffering the accidents longer to augment, vvhich by continuance render themselves much more dangerous both to her and her Child, being careful to give her the gentlest Remedies, and with more preparation and circumspection, so that the Evacuation procured to her by Salivation, be rather by little at a time, and the longer, than too great and sudden; and above all, that it be rather by anointing the upper parts only with *Mercurial Oyntments, and not by Perfumes, which sooner endanger miscarrying, by opening the Womb; besides, that they sooner cause the Fruit to perish if it had life. For the same reason also, no Mercurial Medicine must be taken in at the mouth: vvhwherefore frictions of the upper parts are to be preferred, endeavouring alwayes, as much as may be, to be Masters of the Evacuation, and to hinder it from causing a Loosness; for that is more dangerous than Salivation, because of the continual forcing downward in going to stool, by which the Womb receives great commotion, and is extreemly agitated.

* *As Unguentum Neapolitanum.*

I know very well that many will not easily be perswaded, but that either it is impossible to cure a Woman of the *Pox* whilst she is with Child, or that she and her Child cannot undergo the Remedies without inevitable danger of death: however, the experience I have had of it my self, makes me to be of another opinion, which I am vvhilling to communicate for an example in the like case. In the Year 1660, when I practised Midwifery in the *Hospel de Dieu* at *Paris*, a young Wench, not above twenty years old, came thither to lie-in of her second

cond Child, that had had the *Pox* before ever she conceived the first time, and after miscarried of a dead Child, rotten with the *Pox*; therefore being big this second time, and perceiving the accidents of her disease to augment more and more, she concluded there was no hopes this great Belly would succeed any better than the first, because she had all over her Body, especially upon both her Breasts, very many malignant Ulcers, which encreased day by day, and fearing it might turn to a Cancer before her Reckoning was compleat, being but three months gone, she resolved to submit to a thorough Cure then, and to hazard her life in that condition to save her Child's, having no other hopes to effect it, nor being able her self to resist the growing disease. She acquainted three or four Chirurgeons both vvith her disease and design, not at all concealing her great-belly; who for that cause would not undertake her, (although she was fully resolved upon it, and promised to pay them vvell) telling her that their Conscience would not suffer them to do it in the condition she was in, and that it would be better she would patiently submit to it aswell as she could till she was brought to bed, and then they vvould very vvillingly undertake her: But when she found none would undertake her, unless she concealed her great-belly, vvhich was not hard to be done being but three months gone, and believing there was no better an expedient; She met with another (to whom she mentioned nothing of her great Belly) that put her into the ordinary course, as if there had been no Conception; and, besides the common Remedies used in this disease, he gave her a Salivation by five or six reiterated Frictions of the

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Oyntment, which followed her very plentifully five whole weeks, so that she was well and perfectly cured, without leaving the least ill accident behind of her disease. When she was almost recovered, and that all had succeeded well, she told her Chirurgion she was four months & a half gone with Child, (for she was three months when she came to him, where she lodged six weeks intire, without having it in the least perceived) which at first he could hardly believe, but perceiving her Belly rather grown bigger than lesser during the Evacuation the Physick had made, he was immediately assured of the truth of it: She informed him that the reason why she had concealed her great-Belly, was, the refusal four Chirurgions (to whom she had confest it) made to take her in hand. From the time she was cured she suffered not the least inconvenience during all the remainder of her time, except a little want, because all the money she had was given the Chirurgion for her Cure, which made her come to the *Hospel de Dieu* to lie-in, where I delivered her of a Child at the full time, as big, fat and healthy, as if the Mother never had had the least touch of that disease in her whole body; and which was very remarkable, the Burthen (which is a part very susceptible of the least impression of a Woman's corrupt humours) was as neat, fair and ruddy as could be imagined.

This example, which is very true, may convince us, that a big-bellied Woman may be taken in hand for the *Pox*; and more safely, if the Precautions noted above be carefully observed: For it is without contradiction, that if this Woman had not been cured, she had this second time been brought to bed of

of a rotten Child, as before. Relating once this History to a Chirurgeon, a Friend of mine; he told me, that himself twice, in two different persons, had the same success, who were very well cured, and their Children likewise well born at the full time, without having the least impression of the venom in any part of their Body. *Varandæus* confirms to us this truth in the second Chapter of his second Book of Womens Diseases, where he precisely tells us, that he had seen big-bellied Women who had had this disease eradicated by anointings with *Mercury* and Salivation prescribed by *Empericks*; which may convince us that this Cure will easily have a better success, when governed and managed by a knowing and methodical person.

In a word, 'tis easie to be perswaded that they can endure it, although with Child, because many very often have continual Feavers for twelve or fifteen dayes, and other acute distempers, for which

they have been necessited to be nine or * ten times blooded, and yet notwithstanding have oft-times gone through with their Children to their full account, and been delivered of them as well as if they never had had any ill accident.

**Such frequent bleeding Women with Child in so short a space, is not approved in England.*

CHAP. XXIV.

Of Abortion, and its Causes.

WHEN a Woman casts forth in the beginning what she had retained by conception in the Womb, 'tis called an Effluxion, or a sliding away of the Seeds, because they have not yet acquired any solid substance; if they miscarry of a false conception, which is ordinarily from the later end of the first to the end of the second month, it is called an Expulsion; but when the Infant is already formed, and begins to live, if it comes before the time ordained and prescribed by Nature, it is an abortion: which may happen from the second to the beginning of the seventh month; for afterwards it is accounted a Birth, because the Infant being strong enough, and having all its perfections, may then live, which is impossible, if he comes before. These things thus understood, we then say, that an Abortion is an issuing forth of the Child, yet imperfect, out of the Womb contrary to Nature, before the term limited; which is the cause, that for the most part it is dead; or, if sometimes alive, it dies in a short time after.

We may in general assert, that every acute Disease easily makes a Woman miscarry; because they destroy her fruit, which being dead, never stays long in the Womb; and also puts the Woman in great hazard of her life, as saith Hippocrates in the 30th Aphorism of his 5th Book, *Mulierem gravidam morbo quopiam acuto corripit, turbat.* The particu-

lar causes of Abortion, are all the accidents mentioned in the preceding chapters; as violent and frequent vomitings; because there is not only want of sufficient nourishment for Mother and Child, when the food is so continually vomited up, but also great reachings and endeavours, by which the Womb being often compressed, and as it were shaken, is at last constrained to discharge it self before its time. Pains of the Reins, great Cholicks and Gripes may likewise cause the same accident, as the Strangury also; for there are then made strong compressions of the Belly every moment to expel the Urine. Great Coughs by their frequent agitation, suddenly thrusting the *Diaphragma* with force downwards, give also violent shocks to the Womb. Great Loosenesses endanger a Woman to miscarry, according to the 34th Aphorism of the 5th Book; and sooner if a *Tenesmus* follows, which is great needings, whereby the right Gut seeks to expel the sharp humours that irritate and provoke it. This makes us take notice of the 27th of the 7th Book, *Mulieri utero gerenti, sitensio supervenerit, facit abortum*: for in this case the Womb, which is situated upon the *Rectum*, receives a great commotion by its continual needings. If a Womans Courses flow immoderately, it is impossible her Fruit can be in health, as it is in the 60th Aphorism of the 5th Book; for besides, that the Infant is not sufficiently nourished, the Womb also by being too much moistened, is easily relaxed and opened. Letting Blood immoderately doth the same for the same reason, especially if the Child be great, according to the 31st Chapter of the same Book.

But one of the worst accidents which cause Abortion,

bortion, is that Flooding, which proceeds from the separation of the After-birth from the Womb, of which we treated in the 20th Chapter of this first Book.

The Dropfic of the Womb hinders the Child from growing to perfection, for the great abundance of Water extinguisheth the natural heat which is already at that time much debilitated; and the Pox in the Mother infects the Child, and often kills it in her Belly, as we have demonstrated in the preceeding Chapter; and whatever very much agitates and shakes the big-bellied Womans body, is capable of making her miscarry; as great labour, strong contortions, or violent motions, of what manner soever, in falling, leaping, dancing, and running or riding, going in a Coach or Waggon, crying aloud, or laughing heartily, or any blow received on the Belly; because that by such agitations and commotions, the ligaments of the Womb are relaxed, yea and sometimes broken, as also the After-birth and Membranes of the *Fetus* are loosened. A great noise suddenly and unexpectedly heard may make some Women miscarry; as the noise of a Cannon, and chiefly Thunderclaps; and yet more easily, if to this noise be added the fear they usually have of such things, which happens rather to the young than elderly Women; because their bodies being more tender and transpirable, the air, which is strongly forced by that noise, being introduced into all her pores, offers a great violence by its impulsion on the Womb, and on the Child within it; which the elder being more robust, thicker and closer, resist with more ease. Great watchings, causing a dissipation of the Womans

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strength,

Strength, and much fasting for want of food, hinders the Infant from acquiring its perfection; fetid and stinking smells do much contribute to abortion, and amongst others the smell of Charcoal, as appears by the History recited in the 10th Chapter of this Book.

The indispositions of the Womb produce the same effect, as when it is callous, or so small, or so much compressed by the *Epiploon*, that it cannot be extended, as it ought to be, sufficient to contain the Child and Burthen with ease together, with the Waters, which may likewise happen, if the Woman be too strait laced, or keeps in her Belly with strong and stiff Busks for to be well shap'd; or by this subtilty to conceal a great-belly, as some do; frequent copulation, especially towards the end of her reckoning, may effect the same thing, because then, the Womb being very full, bears much downwards, and its inward orifice being very near, is subjected to violence.

If a Woman miscarries, without any of these accidents, and that one desires to know the cause of it, *Hippocrates* explains it in his 46th Aphorism of the 3th Book, where he saith, *Quæ vero medicriter corpulenta abortum faciunt secundo mense, aut tertio, sine occasione manifesta, ut acatubula uteri mucus sunt plena, nec præ pondere fetum continere possunt sed abrumuntur*: any Woman indifferently corpulent, that miscarries the second or third month, without manifest or apparent cause, it is, because the Corylidons of the Womb (which are the inward closures of its vessels) are full of viscus fith, by reason of which they cannot retain the weight of the Fetus, which is loosened from it. To
this

this accident phlegmatick Women are very subject, and those who have the Whites exceedingly, which by their continual affluence, moisten, and make the Womb within so slippery that the After-burthen cannot adhere to it, which also relaxeth it and its inward orifice, that the least occasion causeth abortion.

But if the passions of the body cause so much hurt to a big-bellied Woman, those of the mind do no less, and specially Cholery which agitates, inflames, disperses and troubles all the Spirits, and mals of Blood, by which the Child suffers extreamly, because of the tenderness of its body; but above all, sudden fear, and the relation of bad news, are capable to make the Women miscarry at that instant; (as it happened to the Mother of that Cousin of mine, whom I mentioned in the 10th Chapter of this first Book) which likewise the other passions may cause, according as they are more or less violent, but not so easily. There are yet other causes of miscarrying which may be said to proceed from the Infant, as when they are monstrous, because they do not then follow the rule of Nature; as likewise when they have an unnatural scituation, which makes them torment themselves because of their incommodity, and they oblige the Womb to expel them, not being able to endure the pains they cause, which it yet does, when it is so great that it cannot contain it to the full time, nor the Mother furnish it with sufficient nourishment.

If we find one or more of the above specified accidents, and that the Woman withall hath a great heaviness in her Belly, so that it falls like a ball on her side when she turns, and that there proceeds

out of her Womb stinking and cadaverous humors, it is a sign she will soon miscarry of a dead Child : moreover, her Breasts will confirm it, if having been hard and full in the beginning, they become afterwards empty and flabby, as is specified in the 37th Aphorism of the 5th Book; and the 38th of the same Book, saith, *That if one of a big-bellied Womans Breasts, who hath two Children, begins to flag, it is a sign she will miscarry of the Child of that side ; and of both, if both flag in the same manner.*

It is most certain, a Woman is in more danger of her life when she miscarries, than at her full time ; because (as we have said before) abortion is wholly contrary to Nature, and very often accompanied with flooding : and in more danger of miscarrying alwayes, if she miscarries of the first ; and some apprehend then an impossibility of ever having Children after, to which, young married people are very subject, because of the violent emotion and perturbation of the whole body, excited by ardent and frequent copulations : but notwithstanding, they may preserve their fruit, when their greater vigour is over, and their loves a little moderated.

We have taught in each of the foregoing Chapters, how to prevent all the accidents before recited, any of which is sufficient to make her miscarry ; and the easier, if many are complicated : wherefore to avoid a troublesome and needless repetition, you may have recourse to the Remedies there taught, by which both Women and Children may escape the danger of death.

They that are subject to abortion, ought above all to take their ease, and keep in bed if they can,
obser-

observing a good diet, and refraining copulation as soon as she believes her self to be with Child; avoiding the use of all Diureticks and Aperitives, which are very pernicious; as also violent passions of the mind, because they are very prejudicial. She ought likewise to be loose in her dress, that she may breathe the freer, and not strait laced, and rackt, as most of them are ordinarily with their Busks under their cloths, to make their bodie's strait; and amongst other things, they had need take heed of slipping and falling in their walking, to which big-bellied Women are very subject, because the bigness of their Bellies hinders them from seeing their way: they will therefore do well to wear low-heeld shoos with large soles, to prevent hurting themselves, as too many daily do. I admire in this case the superstition of many Midwives, and some Authors, who order a Woman with Child, to take, as soon as she hath hurt her Belly with a fall, some Crimson Silk, small minced in the yolk of an Egg, or the grains of * Scarlet, and treddles of *Kermes, several Eggs put into the yolk of one; as if that entering the stomach, were able to fortifie the Womb and the Child in it, and to keep it there, for which there is no appearance of reason or truth: but quiet rest indeed contributes much to it, which for this reason is usually directed for nine dayes; although such a one hath need of 15 dayes, or more, for her hurt or commotion; and to others, five or six is sufficient; during which time may be applied hot to the Belly, Compresses steeped in Aromatick and Astringent Wine. But because there are many Women so infatuated with this superstitious custom, that they would not believe themselves out

of danger, if they took not that Crimson Silk, or the Treddles of the Eggs (which is a pure conceit) one may give it to those that desire it to content them, because these Remedies, though useles, can yet do no hurt. It is now time to make an end of this first Book, in which I have only mentioned the most ordinary distempers, which have some particular indications in their cure; during the Womans being with Child; of which I have not treated very exactly, because it may be supposed that one may elswhere have a more perfect knowledge of them, with all their circumstances: let us now pass to the second Book, to treat of Deliveries, not only the natural, but likewise all that are contrary to nature, it being the principal motive that induced me to write, and to teach as well as I can, the best and most methodical deportment in it.

The End of the first Book.

BOOK



BOOK II.

Of Labours Natural, and Unnatural; with the way how to help Women in the first, and the right means of remedying the rest.

AS it is very unprofitable to those that imbarke on the Sea for a long Voyage, (as for example, to the *Indies*, or the like) if after having by their prudence escaped all the dangers they could meet with in so long a Voyage, they are shipwrackt in the Haven: So likewise it is not sufficient that a great-bellied Woman should be preserved from all the Diseases mentioned in the preceding Book, for nine whole months, if at the end of that time she be not well delivered of it by a happy Labour. This therefore shal be the whole subject of this second Book, where we will treat as well of the Natural as Unnatural Labours, and teach the manner of aiding and comforting Women in the first, and the means to remedy all the rest.

CHAP. .

C H A P. I.

What Labour is, and the differences of it, together with its different terms.

BY a Delivery we understand either an emission or extraction of the Infant, at the full time, out of the Womb. This definition may comprehend as well the Natural, which is accomplished by emission, when the Infant coming in a commodious and natural Figure, the Womb sends it forth without extraordinary violence: as the delivery contrary to Nature, which we are often obliged to perform, extracting it by manual operation.

Every time the Womb lets pass, or sends forth, whatsoever it had retained and formed after conception, must not be call'd a labour; for, observing what I have already noted above, and what I will here again repeat, that it may be more plain, If a Woman voids by the Womb what is contained in the beginning after she had conceived, it is properly called an effluxion or slip: because at that time, there is nothing formed or figured, neither have the Seeds yet any firm consistence, which is the cause why it slips away so easily with the least opening of the Womb, as often happens between the first conceiving and the seventh and eight day only; after which, until the end of the second month, the Woman sometimes lets slip false conceptions, which turn to Moles, if they continue any longer in the Womb; which is then called an Expulsion: And if after the third month or thereabouts, the time
when

when the *Fetus* is wholly formed and animated, it is sent forth before the seventh, in that case it is an Abortion, which is alwayes the cause, either that the Infant comes dead into the World, or dies soon after. But we properly call Labour, or Delivery, every issuing forth of an Infant which happens after the end of the seventh month to all the remaining part of the time afterwards; because there is then a sufficient perfection, as also strength enough, to come into the World, and live in it afterwards.

As to the general differences of Labour, we must take notice, that the one is legitimate or natural, the other illegitimate or against nature. To come to the knowledge of each, we say, that four conditions must absolutely be found in a Delivery that it may deserve to be called legitimate or natural: first, that it be at full time; secondly, that it be speedy, without any considerable accident; thirdly, that the Child be living; and fourthly, that he comes right in a good posture or situation: for if any of these four are wanting, the delivery is against nature; and the more, by how much there are more of them wanting.

As to the due time of Labour, most Authors assert that Nature hath appointed to all other Animals a certain limited time of going with young, and bringing them forth: but that Women only, by a particular favour of the same nature, have none prefixt, neither for conceiving, going with Child, nor bringing forth. And as to conception, 'tis most certain, that a Woman can conceive at any time night or day, summer or winter, or any other season whatsoever; because she can copulate when she pleaseth, which few other Animals can, who couple

ple but at certain seasons when they become lustful but as to the time they are accustomed to go with young, it is no more precisely determined to them, than to a Woman; for as she may be brought to bed either in the seventh, eighth, ninth, tenth, year and sometimes the eleventh month (which happens very rarely) but for the most part in the ninth month. So likewise for example, though the ordinary time for a Bitch to puppy is the fourth month or thereabouts, so some puppy sooner and some later: and Sheep which year their Lambs at the end of five months, advance or recede from that ordinary term, according to the ground where they feed, and the quality of their pasture, to which contribute many particular dispositions of each of these Animals; which likewise happens to all others, as well as to Women. We may perceive the same also in Fruit, for the seasons and different Climates always more or less assist their speedy maturity, which depends likewise very much on good Husbandry. The first time that a Child may live, when born, is the seventh month compleat, and it may better from that till the end of the ninth month, but as soon as that time is pass'd, the stay it makes after in the Womb, is no wayes beneficial to it, because it hath then acquired all necessary perfection and strength sufficient to resist all outward injuries. The Child born before the seventh month cannot live long, as we said before, because of its weakness: but he that is born in the eighth month may very well live, yea, and more likely than born in the 7th month, (which is contrary to the opinion of all the world); because it is more perfect, as I shall demonstrate afterwards in the fifth Chapter of this

second

second Book, where I will particularly shew the cause of this error.

Now as we sometimes see Children born two months before the ordinary time of nine months, do live notwithstanding; so there are some Women not brought to bed till towards the 10th month, and sometimes not till the beginning of the 11th: although this may happen in some, yet there are many who deceive themselves in their reckoning, believing that they are gone but seven or eight months, and sometimes ten or more, when they are but just nine; that which thus abuseth them, is their imagining themselves with Child precisely from the suppressing of their Courses, though it be not alwayes true; because some have wanted their Courses two months before they became with Child; and others have them, on the contrary, two or three months after, on the usual manner: which daily happens according to their different constitutions and temperaments, more or less Sanguine.

If (as we have said) the intire and perfect term be necessary to the legitimate and natural birth; a good figure and situation of the Child is no less, which ought to come with the head first, in a straight line, having the face turned downwards, that is, towards the Mothers back, the arms couched along its sides, and the thighs stretcht upwards. This figure is much the better and convenient, because after the head (which is the biggest part of the Child) is passed, all the rest comes forth easily, and that being so, none of the joyntes of its body can be turned to hinder its passage forth: but any other part that may first present to the Labour, makes it unfortunate, and against Nature, in which case there is

often

often great danger to Mother or Child, and sometimes to both, if not suddenly and duely succour'd.

They who have no perfect knowledge of the parts of a Womans body, acquired by Anatomy, are contented to admire, and cannot (as they say) conceive how it is possible, that an Infant so big, can pass in time of Labour through an opening of the Womb so small; at which *Galen*, and many other Authors, have much admired; many of whom are of opinion that the Womans *os pubis* is separated to enlarge the passage at that time, without which it would be impossible for the Infant to have room enough to be born; and therefore Women a little antiquated, suffer more in their first Labours than others, because their *os pubis* cannot be so easily separated, which often kills their Children in the passage. Others are of the opinion that it is the *Os ilium* which is disjoynted from the *Os sacrum* to the same purpose; and say, both the one and the other of them, that these bones thus separated at the hour of Labour, are thertoe by degrees a little before disposed by the slimy humours, which flow forth from about the Womb, and then mollifie the cartilage, which at other times joyn them firmly. But these two opinions are as far from Truth as Reason; for Anatomy convinceth us clearly, that the Womb by no means toucheth these places, whereby to mollifie them by its humours; as also, that these bones are so joyned by the cartilage, that it is very difficult to separate them with a Knife, especially the *ilium* from the *sacrum*, and almost impossible in some elderly Women, without great violence, although *Ambrose Paré* (citing many witnesses then present at the thing) reports the History of a Woman, in whom

whom (having been hanged fourteen dayes after she was brought to bed) he found (as he saith) the *os pubis* separated in the middle the breadth of half a finger, and the *ossa illia* themselves disjoyned from the *os sacrum*. I will not in this case accuse him of imposture, for I have too much respect for him, and esteem him too sincere for it; but I indeed believe that he was mistaken in this separation; for there is no likelihood that being so at the time of her Labour, it would remain so a fourtnight after the breadth of half a finger; for then they should have been obliged to carry this Woman to Execution: for she would not have been able to have supported her self to climb the Ladder of the Gibbet, and to keep her self on her legs, according to the custom of other Malefactors; because the Body is only supported by the stability of these Bones: wherefore we must rather believe, as most probable, that such a disjunction and separation was caused either by the falling of this Womans Corps from the high Gibbet to the ground after execution; or rather by some impetuous blow on that place, received from some hard or solid thing. If we examine well the different figure and structure of these Bones between a Man and a Womans Sceleton, we shall find a larger empty space and distance between these Bones, much more considerable in Women than Men, and that to this purpose the least Women hath the Bones of the *Iscion* more distant the one from the other, than the biggest Man: they have all likewise the *os sacrum* more outwards, and the *pubis* flatter, which makes the passage from this capacity, larger, and more able to give issue to the Child at the time of Labour; they have besides this, the

Bones

Bones *illia* much more turned outward, that the Womb being impregnated, may have more room to be extended on the sides, and be more at ease supported by such a disposition as is here represented.

These two Figures of Bones represent the Bones that form the whole capacity of the *Hypogastrium*.

A, shews the *Mans* Bones. B, the *Womans*, for to know the difference, that the *Woman* is more capacious and spacious than the *Man*: for C & C, D & D, E & E, are at a larger distance, one from the other in the *Womans* than they are in the *Mans*; and besides, that *Women* have the Coccy, marked F, more turned outward than the *Men*, which gives way to the *Infants* Head to pass without great difficulty through the large passage *thero* *il*ia between the two Bones of the *Isthmus*, marked E & E, without any necessity for the separation of the Os pubis, as some have imagined contrary to truth.

The Bladder, and *Rectum* being emptied of the Excrements they contain, hinder in no wise but that the Womb, expressly made membranous, can dilate itself as it doth, to let the *Infant* pass in Labour, by this great empty space sufficient for it, without any necessity that these Bones should be disjoynted and separated; for if it should so happen, *Women* could not keep themselves on their legs, as many of them do, immediately after they are brought to bed; because, it is instead of a support to them, as is already said, and of a middle juncture to all the rest, as well of the upper as the nether parts of the body; I noted that very well in the



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Hofpital Dieu of Paris in the many Women I have layed there. When Women, that are there to be brought to bed, begin to be in Labour, they go into a little room called the *Stove*, where all are delivered upon a little low bed made exprefs, where they put them before the fire; afterwards, as soon as it is over, they conduct them to their bed, which sometimes is a good way off from this little Chamber, whether they walk very well; which they could never do, if their *Os Pubis*, or those of the *Iliæ*, were separated the one from the other: besides, we often see Maids that conceal their Labour, put themselves (the better to hide their faults) immediately to their ordinary business, as if they ailed nothing: and in all that I have delivered, I could never perceive this pretended disjunction, putting my hand on the *Pubis* when the Child was in the passage; but I have indeed found the *Coccyx*, which is joyned with a loose joynt to the inferiour extremity of the *Os sacrum*, to bend outwards during Labour, in which part the Women feel sometimes much pain, because the coming forth of the Child offers it a great violence, and because its head then doth much press the *Rectum* against it.

Moreover, having often seen and dissected Women dead a few dayes after delivered, I found it very difficult to separate these bones with a strong sharp Penknife, where I could never find the least appearance of any preceding separation: And if the advanced in years have more pain with the first Children than younger Women, it doth not proceed from the difficulty of the separation of these bones (which never is for the reasons above) but because the membranes of their Womb are dry, hard, and

callous; and particularly its internal orifice, which therefore cannot so easily be dilated as young Women, being more moist.

Having sufficiently explained what is Delivery, and all its differences, we must now examine what signs usually precede, and what accompany a natural Delivery, and an unnatural, which shall be the subject of the next Chapter.

CHAP. II.

The Signs that precede and accompany as well a natural as an unnatural Delivery.

WHen Women with Child, chiefly of their first, perceive any extraordinary pains in their Belly, they immediately send for their Midwife, taking it for their Labour; who when she is come, ought to be well informed of the matter, and careful not to put her in Labour before there is a disposition to it; for many times both Mother and Child lose their lives, when it is excited before the due time. Those pains which may be called false, are usually caused by a Cholick proceeding from Wind, which come and go, griping the whole Belly, without any forcing downwards or into the Womb, as those do which proceed or accompany Labour; and this Cholick is dissipated by warm clothes applied to the Belly, and a Clyster or two, by which true Labour-pains are rather furthered than hindered. A Woman may feel other kind of pains coming from an emotion caused by the Flux of
the

the Belly, which are easily known by the frequent stools that follow.

The signs preceding a natural Labour few dayes before, are, that the Belly which before lay high, sinks down, & hinders a Woman at that time from walking as easie as she used; and there flows from the Womb slimy humours, appointed by nature to moisten and smooth the passage, that its inward orifice may the more easily be dilated when it is necessary; which beginning to open a little at that time, suffers that slime to flow away, which proceeds from the humours that strain through the thin substance of the Infants membranes, and acquires a viscosous consistence by the heat of the place.

The signs accompanying present Labour, (*that is, shewing, that the Woman is effectively in Labour*) are, great pains about the region of the Reins and Loins, which coming and redoubling by intervals, answers in the bottom of the Belly with reiterated throws: The face red and inflamed, because the Blood is much heated by the continual endeavours a Woman makes to bring forth her Child; as also, because that during these strong throws her respiration is ever intercepted, for which reason much Blood hath recourse to the Face: Her privy parts are swell'd, because the Infants Head (lying in the Birth) often thrusts and causeth the neighbouring parts to distend outwards, which thence appear swelled in this manner: She is often subject to vomiting, which makes many believe, who know not the cause of it, that the Women to whom it happens, are in danger: but on the contrary it is ordinarily a signe of speedy delivery, because the good pains are then excited and redoubled every

moment until the business be finished. This Vomitting comes from a sympathy, between the Womb and Stomach by reason of the ramifications of the nerves of the sixth pair of the Brain, which are distributed to both the one and the other, and by which it communicates the pain it feels at that time, arising from the agitation the violent and frequent motions of the Child causeth, and the strong compression the muscles of the lower Belly makes during the throws, for to help the issue of the Child: besides, when the birth is very near, Women are troubled with an universal trembling, and principally of the Legs and Thighs; not with cold, as at the beginning of an Ague-fit, but with the heat of the whole body, and the humours, which then flow from the Womb, are often discoloured with Blood, which with the signs above mentioned, is an infallible mark of the nearness of the birth, 'tis that the Midwives usually call *Shows*; and if one then puts up their finger into the neck of the Womb, they will find the inner Orifice dilated, at the opening of which the membranes of the Infant, containing the Waters, present themselves, and are strongly forced downwards with every pain the Woman hath; at which time one may perceive them to resist and appear to the finger, so much the more or less hard and extended as the pains are stronger or weaker. These membranes with the waters in them, when gathered (that is, when they are advanced before the head of the Child, which makes the Midwives call it the gathering of the waters) presenting themselves at this inward Orifice, do then resemble very well to the touch of the finger, the abortive Eggs which have yet no shell, but are only

only covered with a simple membrane : after this the pains redoubling continually, the membranes are broken by the strong impulsion of the waters, which incontinently flow away, and then the head of the Child is easily felt naked, and presented at opening of the inward Orifice of the Womb : Now all these, or the greatest part of them met together, at what time soever of a Womans going with Child it be, whether full time or no, one may be assured she will soon be delivered ; but great care must be taken not to hasten her Labour, before the necessity of it be known by these signs, for that would but torment the Woman and Child in vain, and put them both in danger of their lives, as that Midwife did, whom I found endeavouring to put the above named *Martha Rolet* in Labour at six months end, because of some pains she had in her Belly and Reins, without any other accident answering them downwards ; which History is at large in the sixth Chapter of the first Book, to shew that in some cases we must make no more haste than good speed.

Labour contrary to Nature is when the Child comes in an ill Figure and scituation ; as when it presents any otherwise than the Head first, as also when the Waters flow away along time before it is born, because it remains dry in the Womb, and they are absolutely necessary to moisten the passage, and render it more slippery. When the After-burthen comes first, it is an accident which renders the Labour always dangerous, by reason of the great flux of Blood usually following, of which the Mother may die in a few hours, and the Infant (because it receives no more nourishment) is quickly smotherd in the Womb, for want of respiration, which it then

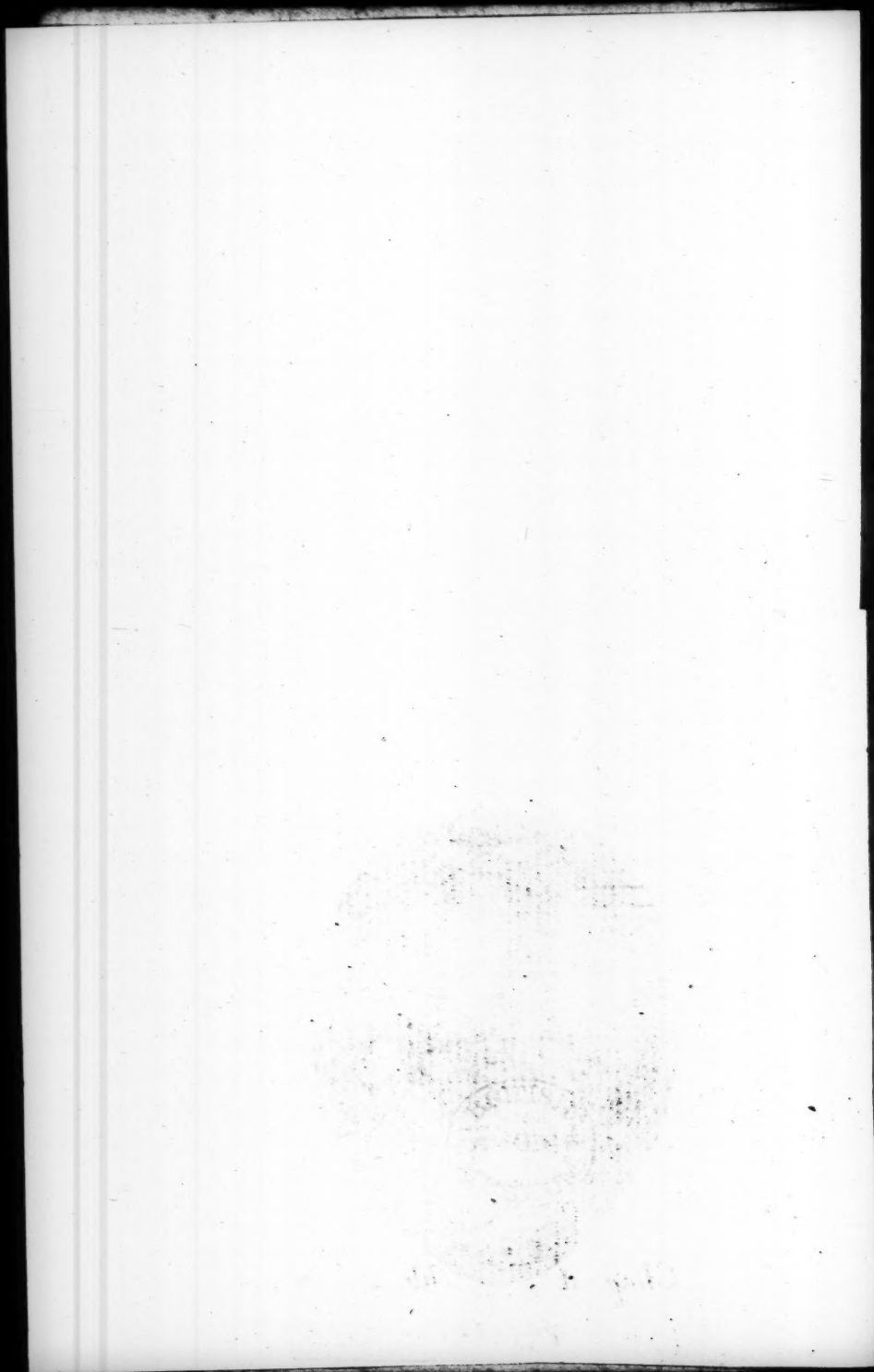
needs, if it stay never so little after. The Labour is also grievous, when accompanied with a Feaver, or any other considerable Distemper, which may destroy the Child in the Womb, as also when pains are small, and come slow with long intervals, and little profit, by reason of which a Woman is extremely tyred: but the difficulty most frequent and ordinary comes from the Infant's wrong posture. We shall speak more particularly of the signs of all these different Deliveries, in treating of them severally hereafter: and now come to the inquiry of some particulars, without which it is impossible to assist a Woman safely in her natural Labour, or to help her in the unnatural ones: and therefore we will examine every thing that is in the Womb with the Infant during pregnancy, and first describe those that first offer themselves to pass the Orifice, when the Woman is near her delivery, which are the membranes of the Infant, and the waters contained in them.

This Figure represents the Membranes of the Infant, wholly separated from the Womb, in which it is contained with the Waters. These Membranes in some manner resemble a great Bladder, through which the figure of the Infant may be a little perceived: there is likewise seen on the upper part, the After-burthen, marked A, on that side, which is fastened to the bottom of the Womb.



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C H A P. III.

Of the Membranes of the Infant, and the Waters.

AS soon as the two Seeds have been confusedly mixed, and retained by conception, the Womb immediately after, by means of its heart * separates this Chaos, for to **Extricates,* make out of it the delineation and **disentangles.* formation of all the parts, and begins to work upon these Seeds, which though to the sight they appear similar and uniform, yet in effect contain in them many dissimilar parts, all which it separates and distinguisheth one from the other, inclosing the most noble, and on the * outside the most glutinous and vis- **Covering.* cous, of which first the Membranes are formed for to hinder the Spirits, wherewith the spumous Seed abounds, from being then dissipated, and to serve afterwards to contain the Infant and the Waters, in the midst of which it swims, that they may not stream away.

As the Membranes of the *Fetus* are the first parts formed, so are they with the Waters the first that in time of Labour present themselves to the passage before the Infants Head. Most Authors are so dark in the descriptions they make of these Membranes, that it is very hard to conceive them as they are, by the explication they make of them. They do not so much as agree in the number of them, some account three as well for a Child as a Beast, to wit,

the *Chorion*, the *Amnios*, and the *Allantoides*; others account but two, because there is no *Allantoides* in a humane *Fetus*; but to speak properly (if it be strictly examined) what there is, (as I have often done) there will be never found but two, which are so joyned and contiguous the one to the other, that it may be said to be but a double one, which may indeed be separated and divided into two. I will explain it on such wise, as may be best understood by those that are ignorant of it: for there are many, who think with *Galen*, that these Membranes are separated and distant the one from the other, and that the one surrounds only the Infant, and the other receives the Waters, which are partly engendred from sweat, and partly from the urine, (as they imagine); and believe further, that these Waters themselves are separated the one from the other by these Membranes, which is quite contrary: for they are both so joyned the one to the other, that they compose as it were but the same body and involver, which serves (as we have already said) to contain the Infant with the Waters, which are all of a nature, and shut up in the same Membranes, as I shall make appear hereafter in speaking of their original): it matters not to the truth, after what manner this be explained, provided it may be understood as it is.

The exterior part of this Membrane,
 * *Covering* or double * *Involver*; or, if it be
 esteemed two, the first Membrane presented without, is called *Chorion*, from the Greek word *χωρεω*, signifying to contain, because it immediately contains and invirons the other, which is
 called

unnatural Deliberates. 153

called *Amnios*, that is a little Lamb, because it is so small and thin. *Galen* in his 15th Book of the use of parts, calls the burthen *Chorion*. But to render this more, intilligible, we shall take this first Membrane for the *Chorion*, which may be again separated and divided into two, though effectively it be but one. The *Chorion* is a little rough, and unequal throughout the whole outside of it, in which many small capillary vessels may be observed, running quite round, as also many little fibres by which it cleaves to every side of the Womb: but it is a little more smooth within, where it joyns everywhere, and unites with the *Amnios*, in such a manner as that it appears (as we have already declared) but as one and the same Membrane. This *Chorion*, covers the *Placenta*, and cleaves close to the forepart of it, which respects the Infant, by means of the interlacings of an infinity of Vessels: it is also principally fastened to the Womb by the whole circumference of the *Placenta*, in which part this Membrane is a little thicker.

The *Amnios*, which is the second Membrane, is three times thiner than the *Chorion*: and is very smooth within, but not just so much where 'tis joyned and united to the *Chorion*. This Membrane is so thin, that it is quite transparent; and hath no vessels in it, which makes it so thin, as cannot be imagined without seeing. This *Amnios* doth in no wise touch the *Placenta*, though it covers it, but it lines only all the inner part of the *Chorion*, which is between, and from which it may be wholly separated, if it be done with care.

The better to conceive this as it is, and after what manner these Membranes are in the Womb, consider

der the composition of a Foot-bal, imagining the Leather which covers it, to be the Womb of a pregnant Woman, and the Bladder blown up with wind, within the Foot-ball, to be this double Membrane of the *Chorion* and *Amnios*, in which are contained together the Child and the Waters; and even as the outside of this Bladder toucheth every where (because it is blown up) the Leather of the Foot-bal: so likewise the Membranes of the *Fetus* are joyned on all sides to the Womb, except where the Burthen cleaves to it, in which place it passeth above it.

As to the 3d (or rather pretended) Membrane, which Authors name *Allantoide*, & say is like a Sausage or Girdle, which surrounds & clothes the Infant from the cartilage *Xiphoides*, to just below the Flanks only; it is most certain, there never was any such thing in any of these Animals whose Dams have but one young at a time no more than Women, as Sheep, Cows, Mares, she-Asses, nor any other for ought I could ever learn after many curious inquiries.

Sometimes Infants at their birth, bring forth these Membranes upon their head, and then 'tis said they will be fortunate: which is meerly superstitious, because it happens by the strength of their substance, so that they cannot burst by the impulse of the Waters, or the Womens throws in Labour; or because the passages being very large, and the Infant very little, it passeth very easie without violence: in truth in this respect they may be said to be fortunate, for having been born so easily; and the Mother also for being so speedily delivered; for in difficult Labours, Children are never born with such caps, because being tormented and pressed in the

the passage, these Membranes are broken and remain still there.

Within the Infants Membranes (disposed as I have explicated) are contained the Waters, in the midst whereof he swims, and is situated; the original of which seems very uncertain, if the different opinions of Authors upon this subject be regarded. Some will have them to be the Urine emptied out of the Bladder by the **On- *Urachus*. *raque*, because they cannot find a true and easie way for it; and because their colour and savour much resembles the Urine contained in the Bladder: but it is very certain, it cannot be so as they say, because the *Urachus* is not perforated in the *Fetus*, and it comes not forth of the Navel; for the place where it is fastened, is alwayes tending, and very like a small Lutestring, through which, it is most certain, nothing can pass, how subtil soever; as I have often observed and seen Mr. *Gayant* to note, who is, with universal Approbation, the most exact and expert Anatomist, that hath been this long time in *Paris*: for whose merit, his Majesty hath done him the honour to choose him before all others to make those curious Inquiries and many fair Experiments, in which many choise and knowing Persons are continually imployed, who are of the Royal Academy. Now this natural conformation doth clearly manifest that *Laurentius* was abused, when he saith, that he had seen a Man, whose *Oraque* was not closed, to void a quantity of Water by the Navel; inferring thence, that it came from the Bladder by this *Urachus*; and that which is contained within the Infants Membranes, is amassed after the same manner. I doubt not but he

he saw a Man void Water by the Navel, as he saith; but it did certainly proceed from the capacity of the lower Belly, where he had a Dropsie, and not from the Bladder; for there is no cavity in the *Urachus*, as we have said, at least not, except it be against the order of Nature; upon which, in this case, we must not rely so, as to affirm it ought to be so in all other subjects.

There are others, who will also have these Waters to be the Urine: but they are of an opinion that it passeth through the Yard, whose passage is alwayes open, and not by the *Urachus* which never is hollow.

For my part, as it appears to me, with more reason, and as indeed it is, these Waters are only generated out of vaporous humidities, which transude and exhale continually out of the Infants body, and meeting these Membranes, through which they cannot pass, because they are too thick and close, are turned into Water, which is thus by little and little collected, as well during the first months of Conception, the Child not yet quick, as all the remaining part of the time; after it is: for vapours pass forth and exhale out of all porous bodies that are hot and moist, as is that of an *Embrio*; and the reason is very weak, by which they maintain these Waters to proceed from the Urine, because they are salt, as the Urine is; for Sweat, Tears, and other humours, which distill and transude out of the body, are as well salt as the Urine, of which the Infant, whilst it is in the Womb, cannot have much, no more than ordeur in the Guts, because at such time it receives no nourishment by the mouth, and that all its superfluous humours may easily

easily pass away by transpiration, through the substance of all the parts of its body, which is very tender : wherefore I cannot conceive any necessity to oblige them more to empty the Urine, which is in a small quantity in the Bladder, than the Excrements which are in the Guts ; which is not then done in any manner, but only after the Child is born. *Bartholinus* and others would however have the Infant to render its Urine through its Yard, and that these Waters proceed from thence : but there is a greater probability it should come by transpiration, as I have said ; for before it is yet fully shaped, and quick, there is notwithstanding found a proportionable quantity of these Waters to the bigness of his body : which makes it manifest, that it is then neither the Urine rendered by the *Utraculus* nor the Yard, as all the world imagine : and that which proves it more plainly, is the example of some Children born with their Yards not perforated, who notwithstanding have these Waters, whilst they are in their Mothers Womb.

It must be observed, that when there is more than one Child, they are never in the same Membrane, unless their bodies are joyned and adhering together (which is rare and monstrous when it happens) but each of them have their Membranes and Waters apart and separated, in which they are each wrapt up by themselves,

These Waters thus collected within these Membranes have divers very considerable uses. They serve the Infant to move it self the more easily, as it were by swimming from one side to the other, and that it may not hurt the Womb by its frequent motions in striking dry against it, which would
cause

cause great pain and often excite to abortion: they serve also very much to facilitate its passage in the Birth, making the way very slippery, and by that means the orifice of the Womb being moistened, is

better widened and yeelding when they break, * just when the Child is ready to follow; or a little before: for else, remaining dry, it is born with greater difficulty, and the Mother also more tormented by it.

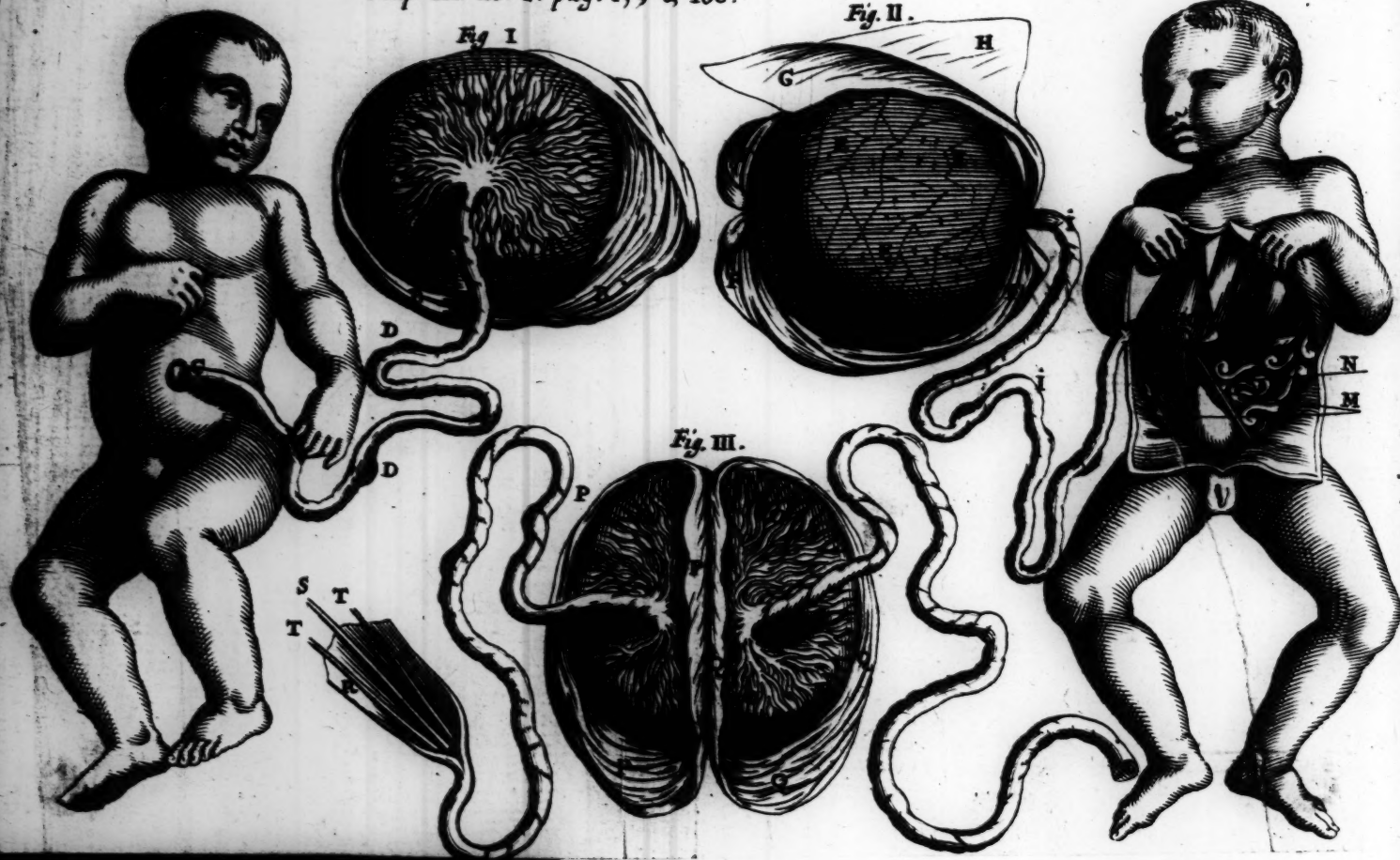
John Claudius de la Corvée, Physician to the late Queen of Poland, in his Book intituled *De Nutritione Fetus*, would have these Waters to serve the Infant chiefly for nourishment, and that it sucks them by his mouth, and swallows them (as he imagines) whilst he continues in the Womb: but the truth of the contrary being known to the least Scholar, it would be but labour, in vain to refute all the reasons he brings to prove and support his saying; for they destroy themselves, and do all of them correspond to the falshood of their principle.

Having thus sufficiently explained the Membrans and Waters of the *Fetus*, we must in order inquire after the parts, by means of which it is nourished whilst in the Womb, which shall be our following discourse.

These three Figures represent the *Placenta*, or After-birth, and the umbilical vessels of the Infant.

The first shews the shape of the Burthen, to the midst





midst of which is fastened the Navel-string, & round it may be discerned the * *Skins*.
 * Membranes of the Infant, which remain thus wrinkled when the Child is come forth of it.

A A A, *Shews the body or cake of the Burthen.*

B B B, *The Skins fastened round about it.*

C C C, *The Navel-string, which contains the Infants umbilical vessels, and proceeding from his Navel, are inserted in the midst of the burthen, where they produce an infinity of branches.*

D D, *Certain eminencies, called knots, found on the string, proceeding from the dilatation of the umbilical vessels more in one place than in the other.*

The second Figure shews the Burthen turned on the outside, and the Childs belly opened, that the distribution of the umbilical vessels may be then considered.

E E E, *Shows the Burthen on that side which cleaves to the Womb: on this side there appears no vessels as there doth on the other; but only some simple interlinings and small outlets, by which the Blood that transudes the Womb, may distil into this parenchymatous mass.*

F F F, *The Membranes, Skin, or Skirt.*

H, *A portion of the Amnios separated from the Chorion, marked I.*

G, *A part of the Chorion, separated from the Amnios, marked H.*

III, *The Navel-string, in which are many knots.*

K, *The Navel where the vessels enter.*

L. *The*

L, The umbilical veine, which enters into the fissure of the Liver.

M, The two umbilical Arteries, which being conducted along the side of the Bladder, are inserted into the Iliac Arteries, and sometimes into the Hypogastricks.

N, The Uraehus, which from the bottom of the Bladder, couching between the two umbilical Arteries, is fastened in the Navel, without passing forth, in which place it is not hollow in the least, and is extremely small.

The third Figure shews the burthen of Twins, where each Child hath his several Navel-string and Membranes apart.

OOOO, The fleshy substance or body of the Burthen, common to both Children.

PPP, The Skirt or Membranes, which wrap up the Child on this side apart.

QQQ, The other Membranes, which contains the other Child apart.

As to the strings, which are double to this After-burthen, that on the right is dissected at the end, to shew that there are but three vessels only in it.

R, Shews a strong Membrane, in which these three umbilical vessels are inclosed.

The Veine which is very big.

T, The two Arteries, much less than the Vein.

the other string cut on the other end, where are only seen the orifices of the vessels.

CHAP. IV.

*Of the Placenta, and umbilical Vessels of
the Child.*

SINCE the Infant is only nourished with the Mothers blood whilst it is in the Womb, and that big-bellied Women never have any that is fair or good; provident Nature hath formed the *Placenta* to serve it for a Magazin, that it may alwaies have sufficient, and be there again elaborated and perfected, to render it more convenient for its nourishment; for without doubt, so gross a blood as the Mothers cannot possibly be converted into its delicate substance, if it were not first purified in the *Placenta*, which is afterwards sent to it by meanes of the *Umbilical* vein, and brought back, as we shall shew hereafter, by the Arteries, which are the conduits of which the the Navel-string is composed. We say then that the *Placenta* is nothing but a spongy and fleshy mass, somewhat like the substance of the Spleen, woven and interlaced with an infinity of Veins and Arteries, which compose the greatest part of its body, made to receive the Mothers blood, appointed for the Infants nourishment, which is in the Womb. This mass of spongyous flesh is thus called, because it resembles in figure a Cake; some call it the *Delivery*, because being come forth after the Child is born, the Woman is quite delivered of the burthen of her great-belly: It is likewise called

L

the

the *After-burthen*, because it is as a second labour, of which the Woman is not discharged till * after the Child is born: there are some which give it the name of the *Uterine* Liver, because they say it serves

as a Liver to prepare the blood appointed for the Infants nourishment: and *Laurentius* likes rather to call it the * *Pan-*

* *Sweetbread.* *creas* of the Womb, and appoints the same use for it, as for the *Pancreas* of the lower belly, to wit, for a rest and support to the vessels of the Navel, which disperse an infinite number of branches throughout all its substance.

This *Placenta* is made of the menstruous blood of the Mother, which flows into the Womb, by the accumulation of which is formed this *Parenchymatous* mass; the shape of it is flat and round, of about the bigness of a Trencher, and two fingers breadth thick towards the middle of it, where the *umbilical* vessels are fastned: but it is thinner towards the edges of all its whole circumference. It is covered with the *Chorion* and *Amnios* on the side next the Infant, and on the other side it is joined and fastened to the bottom on the inside of the Womb: It is strongest fastened to the Womb (with its circumference) by means of the *Chorion*, as we have hinted already in the preceding Chapter, which cleaves so close to it, by the interlacings of an infinity of Vessels, which appear very large in its surface, that it cannot be separated from it without laceration of its substance.

If one considers diligently, as I have done, the *Placenta* on that side which joyns to the Mother, they may perceive that it is also indued with a kind of light *membrane*, which is so frail and small, that it is almost imperceptible: however, it may manifestly be discerned by wiping away the blood with which it is alwaies coloured.

There may be again observed, that all the superficies on this side is as it were much interlined; not unlike in some measure those of an Oxes reins: and there appears likewise many small out-lets, by which the blood, that transfuses through the porous substance of the Womb, distills into this fleshy mass.

Although there be two Children in the Womb; nay three, if twins, that is to say, begotten in the same act, they have usually but one common *After-burthen*: which hath as many Navel-strings fastened to it, as there are Children; which notwithstanding are separated one from the other by their several *membranes*, in each of which the Children are apart with their Waters; if at least (as I have said in the precedent Chapters) their bodies be not joyned and adhering one to the other; in which case the Twins of this kind have as well their Waters in common; as that they are involved in the same *membranes*: but if they be superfetations, there will be as many burthens as Children: and as superfetation (if there are as many as may possibly be) happen but very rarely; so there are few Women that have their burthens separated; when they are delivered of several Children.

We scarce find any creature but a Woman; that
 L 2 hath

hath an After-burthen, like what we have described, and dischargeth it as useles, assoon as the Child is born; for most other Animals cast forth nothing after their young, except the waters only and some slime, with the *membranes* which surround them; and instead of this fleshy mass, those, which ordinarily, as a Woman, bring forth but one young at a time, have only some *Cotyledons*, which are many spongius kernells, joynd inwardly to the proper substance of their Womb, where terminates all the branches of the *Umbilical* vessels of their young; which kernells, as I have often observed in the dissecting of sheep, are not bigger than Hemp-seed, when they are not with young; but when they are with young, they swell extremely, and become of the bigness of a thumb, the one bigger, the other lesser: they then resemble much the Figure of a round Mushroom, not yet spread, on the wrong side, after it be cut from its stalk; and to each of those *Cotyledons*, or kernells, are fastened the *ramifications* of the *umbilical* Vessels: however it is certain, that the Animals, which have ordinarily more than one at a time; as Bitches, Rabbits and others, have no *Cotyledons*, instead of which each young hath in its *Cellule* a kind of particular *Placenta*, which the dam eats assoon as she voids it, after she hath gnawed and cut off with her teeth the *Umbilical* vessel which held it.

When a big-bellied Woman hath the least indisposition of her whole habit, there is almost ever some mark and impression either in colour or substance on the after-burthen, which she voids in her labour; because, it being of a very soft substance,

stance, easily imbibes the ill humours of the body, which used to be voided by the Womb. Its natural colour ought to be red, and so much the fairer and better coloured, as the Woman is in good health; its substance must be whole and equally soft, without the least *schirrous* hardness.

From the midst of the Burthen proceeds a string, composed of many vessels joined together, which serve to conduct the blood appointed for the Infants nouriture; the number of them is disputed amongst Authors: some reckon four, that is, two Veins and two Arteries; others five, adding the *Omphalus* to them; but it is very certain that there are but three only in a humane *Fœtus*, as I have found by many dissections; to wit, one Vein and two Arteries: the vein having sent forth into the *Placenta* an infinity of branches, like to the roots of a tree, is conducted by a single channel all along the string to the Infants navel, which it passeth, to be at last terminated in the midst of the *Pissure*, which is in the inferiour part of the Liver; and the two Arteries taking their rise out of the same *Placenta*, from a great number of the like roots, pass along the same string by two conduits, piercing also the Infants Navel, and end in its *Iliac* Arteries, and sometimes in the *Hypogastricks*. The Vein is much bigger than the Arteries; its cavity is capable to admit a writing-quill into it, and those of the Arteries only a small bodkin about half the bigness of the Vein.

These three Vessels composing the string, are wrapt up in one *Membrane* thick and strong enough, proceeding from the *Chorian*, which likewise is clothed about with a production from the

Amnios, and may easily be separated: but besides that this first serves them as a sheath, in which they are all three lodged, it separates them again one from the other by its duplications; When the vessels of the string are full of blood, it is then of about the bigness of a finger, and ordinarily of the length of a good half Ell, and sometimes of two thirds, or three quarters. It is necessary it should be of this length, that the Infant may have liberty to move itself in the Womb, and to go forth of it at its birth without tearing the After-burthen, to which it is fixed: There are many very plain inequalities, like unto knots, which only proceed from the dilatation of the Vessels, which being *varicose* and fuller of blood in one place than another, causeth these eminences. Some Midwives believe superstitiously, or would make others believe, that the number of these pretended knots, answers the number of Children the Woman shall have afterwards, which is without reason; because Women delivered at forty years of age, and of their last Child, as we find by daily experience, have as many knots on the Navel-string, as a Woman of twenty years, who may yet have a dozen Children: they say further, That if the first knot be red, the next Child the Woman shall have, will be a Boy; if white, a Girl: but this Proposition is as ill grounded, as the other; for these Knots appear only red, or to speak more properly, of a dark blew, according as the Vessels are more or less full of blood, and especially the Vein which gives it that colour, and is so much the more apparent, as it is superficial in that place.

There are many Authors admit, as we have said,

said, the *Ovary* into the number of these *Umbilical* vessels, saying that it serves to empty the Childs urine into its *Membranes*: however, experience shewes us it is no vessel, and that it passeth not forth of the Navel; but that it is only a *Ligament*, in a Child, as it is in a Man, which coming from the bottom of the Bladder, terminates at the Navel, without traversing it, as they have hitherto mistaken it. I have opened and dissected above thirty *Fœtus's*, in none of which did I ever find it hollow, but alwaies very solid and tendinous, towards the place where it is fastned to the Navel: and very like, as I have already said, to a small Lute-string: Notwithstanding I ever found it manifestly hollow in an Ewe, which was terminated with their other *Umbilical* vessels, at their *Corylons*; in which Animals are also two *Umbilical* veins to be seen, going both near one the other to the Liver, which makes that their Navel-string consists of five Vessels; but it is not the same in a human *Fœtus*, for there is but one onely *Umbilical* Vein, and two Arteries.

To understand well how the nourishment is conveyed to the Infant by the *Umbilical* vessels, it is very necessary to conceive and know, in what manner the Blood circulates; which is after this manner. The blood having been conveyed by the mothers Arteries, which end at the bottom of the Womb in the *Placenta*, which is there fastned, makes a natural transfusion through the *Umbilical* Vein into the Childs Liver, after which it is carried into the *Vena cava*, and thence to the Heart, whence it is sent to all the parts by means of the Arteries, and very near a like portion in quantity

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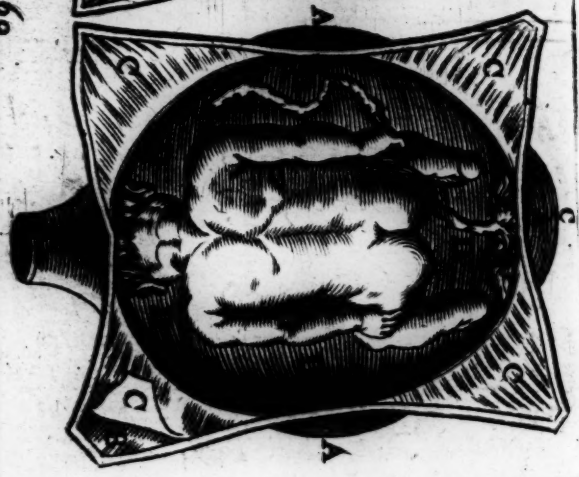
being

Being in the *Iliac* Arteries, is conducted into the *Umbilicals*, which are there terminated, for to be carried back into the *Placenta*, where this blood being again elaborated, returns to make the same journey by the *Umbilical* Vein, passing again to the Childs Liver, and thence to the Heart, and so alwayes successively, without the least intermission. But to be able to conceive easily how the blood circulates in the *Placenta*, and how by the help of that part is made a mutual transfusion from the one to the other, as well in respect of the Mother, as of the Child; we need but imagine it to be a common part, and depending on both their bodies: for as to the Mother, the circulation is there made just as in her Arm, or any other part of her whatsoever; and as to the Child, it is even the same.

There are no *Valvules* found in the *Umbilical* Vein, though I have curiously examined it, nor are any necessary: these *Valvules* are very frequent in the Veins of the Arms and Legs; because these parts are obliged to make different motions, which compressing the Vessels would trouble those of the blood, if it were not so sustained and hindered from recoiling; but the *Umbilical* Vein hath no need of any, because the Navel-string is loose and floating in the midst of the waters, where it cannot be compressed; and therefore the motion of the Blood cannot be there intercepted, as it is sometimes in the Arms and Legs, or other parts where there are strong contractions.

As soon as the Child is born, these Vessels, which are bigger in a *Fetus*, because of their cavity, than they are in a Man, dry up; and that part of them
which





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which is without the belly, falls off, and is separated close to the Navel five or six days after; for which reason they lose their first use, and begin afterwards to degenerate into suspending Ligaments, to wit, the Vein into that of the Liver, and the two Arteries serve to extend and sustain the Bladder by the sides where they are joyned to it, the bottom of which is yet suspended by the *Ombilicus*, which comes not through the Navel, as hath been said, but remains so pendant all the rest of its life. We have hitherto made mention of all those things which are found with the Child in the Womb, let us now show what are the different situations of it in the Womb, according to the different times of Pregnancy: It is a thing of very great consequence, and deserves some reflections.

The three following Figures represent the different natural situations of the Child in the Womb.

That which is marked B, shows how it is situated the seven first months of Pregnancy.

That which is marked A, shows the same situation on the back-side.

And the third, marked C, shows in what fashion it is situated towards the end of a Woman's reckoning, and at the time that it is disposed to be born.

Explication of all the Wombs, in which are contained all the Children represented in different postures, as well in this place, as in all the following.

AAAAA, Shows the substance of the Womb.

B, The

B, *The Membrane called Chorion, which lines the Womb within.*

CCCC, *The membrane Amnios, which is so united and joyned to the Chorion, that both of them seem to be but one single Membrane.*

DDDD, *Shews all the space which is filled with waters, in the midst of which the Infant floats and is scituated.*

EE, *The After-birth fastened to the bottom of the Womb.*

FFF, *The Navel-string, which fluctuates hither and thither in the waters.*

CHAP. V.

Of the several natural scituations of an Infant in the Mothers Womb, according to the different times of Pregnancy.

WHen we shall have explained the several natural scituations of an Infant, those contrary to Nature, causing for the most part all ill labours, will easily be conceived.

It may be considered that generally the Infants, as well Male as Female, are usually scituated in the midst of the Womb; for though sometimes a Womans great Belly is a little higher on the one side than the other, yet that is, because the globe of the Womb inclines more that way, and this scituation on the side must be understood only in respect of the Mothers belly; and not of her Womb, in the midst of which it is alwaies placed; because

because there is but one only cavity in a Womans Womb, marked with a small line in its length, without having two or more separations; as is seen in those of other Animals.

There are some who would have these two imaginary cavities to be the cause why Women sometimes bear Twins, yea and sometimes more; and that the Males are rather engendered on the right, and Females on the left side, which is *Hypocrates's* opinion in the 48th *Apborisme* of his 5th Book, where he saith, *Fœtus Maris dextrâ uteri parte, Fœmine sinistrâ magis gestantur*, but without any certain reason for it; because some Women have the Males on the left-side, others the Females on the right; and when there are Twins, sometimes both are of the same Sex, sometimes not, and indifferently situated on the right or the left. This is all can be said in general of the situation of Children in the Womb.

But in particular, when we consider the several Figures it makes; it differs according to the different times of Pregnancy; for when the Woman is young with Child, the little *Fœtus*, called *Embryo*, is alwaies found of a round Figure a little oblong, having the *Spine* moderately turned inwards, the Thighs folded and a little raised, to which the Legs are so joined, that the Heels touch the Buttocks; the Arms are bending, and the Hands placed upon the Knees, towards which the Head is inclining forwards, so that the Chin toucheth the Breast. It resembles, in this posture very well, one sitting to void his Excrements, and stooping down his head to see what comes from him. The *Spine* of its Back is at that time placed towards the Mothers,

the

the head uppermost, the face forwards, and the feet downwards; and proportionable to its growth and grandeur, it extends by little and little its members, which were exactly folded in the first months. It keeps usually this posture till the *seventh* or *eighth* month, at which time the head being grown very big, is carried downwards by its weight, towards the inward orifice of the Womb, tumbling as it were over its head, so that then the feet are uppermost, and the face towards the Mothers great gut. Some believe that only Males are so turned downwards when they are born, and that the Females are with their face upwards; but both the one and the other are alwaies turned downwards, with their face towards the *Rectum* of their Mother, as is abovesaid, and when it happens otherwise, it is unnatural; for the Childs face coming upwards will be extremely bruised, and the nose wholly flatted, because of the bones hardness in the passage.

It may be noted, that when the Child hath thus changed its first situation, being not yet accustomed to this last, it stirs and torments it self so much sometimes, that the Woman, by reason of the pains she feels, is apt to believe it her Labour. And if this circumstance be well considered, they will find it to be that first pretended endeavour which Authors imagine the Child makes for to be born in the *seventh* moneth, and not being able to accomplish, it remains so till the *Ninth*, and that reiterating it in the eighth, if it be born, it lives not long, because it was not able to endure two such puissant endeavors so near together. But it is a meer abuse, for if the Child turnes it self for
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with the head downwards, or rather is turned, it is but by a natural disposition of the weight of the upper parts of the body, and if it stirs much at that time and soon after, it is not from a desire to be born, but from the inconvenience it receives from this new posture, to which it was not before accustomed, as already hath been mentioned: And it begins to turn thus sometimes from the *Seventh* month, rarely before but by accident, ofteneft about the *eighth* Moneth, and sometimes in the *ninth* only, and at other times also it doth not turn at all, as we way easily perceive in those that come in their first scituation, that is, with their feet foremost. From whence it is easie to conjecture, and I hold it for a certain truth, that the Children are the more strong and robust, and consequently may more likely live, by how much the nearer they approach to the more natural and perfect time, which is at the end of the *ninth* Month.

The Infant then is turned on this manner with his Head downwards towards the latter end of the Reckoning, to the end only that he may be the better disposed for its easier passage into the world at the time of Labour, which is not then far off: For in this posture all its joints are easily extended in coming forth, and the Arms and Legs cannot hinder its birth; because they cannot be bended against the inward orifice of the Womb; and the rest of the body, which is very supple, passeth very easily, after the Head, which is hard and big, be once quite born.

When there are many Children, they ought, if it be natural, to come in the same figure, as when there

there is but one: but usually by their different motions they do so incommode one the other, that almost alwaies one of them presents wrong at the time of Labour, yea and before; which is the cause that one comes often with the Head, the other with the Feet; or any other worse posture, and sometimes both come wrong.

However the Infant may be scituated in the Mothers belly, or in whatsoever fashion it be that it presents at the birth, if it be not according to the posture above described, it is alwaies against Nature: and the natural scituation is so necessary to a good and legitimate Delivery, that those which are against nature, do cause for the most part bad Labours.

When a big-bellyed Woman is happily arrived near her haven, she ought then to take great care she suffers not shipwrack there; which she will avoid, if she observes exactly at the end of her reckoning the Rules which follow.

CHAP. VI.

What a Woman ought to do, when she hath gone her full time.

I Am not of the opinion of most Mid-wives, who advise Women with Child (that they may, as they say, have the better labour) to use more than ordinary exercise towards the end of their reckoning, as *Lisbani* also directs, who orders them to ride in Coaches, or trotting Horses, which is a very dangerous

dangerous advice, and causeth daily many wrong Births; for, as we said in the precedent Chapter, 'tis about that time that ordinarily the Child turns its head downwards, and its heels upwards, for to be born right, and the poor Women often believing they may procure an easie labour, make it by this extraordinary exercise very unhappy, which because of the agitation and commotion of the body, causeth the Child to take a wrong posture, or makes the Womb so to bear down and be engaged in the cavity of the *Hypogastrium*, that afterwards it hath not at due time liberty to be turned; which is often the reason, why it comes in its first posture, that is, with the feet, besides that labour (which ought to be Natures work, if the Child come right) is thereby excited before the full time, and though it were but four or five days, it hinders not, as I have said elsewhere, from being as prejudicial to them, as we see it is to the taste, goodness, and conservation of Fruit gathered but few days before its perfect maturity.

Wherefore I counsel a Woman (though almost contrary to the unreasonable opinion of every one) to keep her self more quiet than ordinary, when she draws near her time, that so her Child may be able to turn it self directly right, and that she by all means avoids being strait laced, that so it may have more space to be turned into a fit posture to be born; she must then likewise observe a good diet of meat, of good juyce and easie digestion, rather boiled than roasted, to moisten the better, and keep the body thereby open, rather than by Clysters, which may hasten labour; she may about eight or ten days before Labour anoint her

her privities with Goose, Capon, or Hogs Grease or fresh Butter: or foment those parts with fomentations, which may by mollifying and loosening, render those passages more smooth and slippery. This ought principally to be done by those that go with their first Child; because their passages are more strait than others who have had Children already: but they who are a little in years, have much more pain, and are longer in Labour of their first Child, than others who are indifferent young; because the Membranes of their Womb are harder and dryer; wherefore they cannot yeeld so well, nor the inward Orifice be so easily dilated.

Some Authors commend bathing, the better to relax those parts; but it is dangerous, lest by their too much moistness, and the emotion they cause to the whole Body, they make her come a little before her time. Many Women bleed by way of prevention, when they are, or believe themselves to be at their full time; which custom I cannot approve, if it be only for prevention; but I do, in case some other necessity require it, provided they abstain from it after the *seventh* Moneth; because the stirring of the Child, caused by bleeding, is sometimes so vehement, that the Womb is constrained to open, before its time to be rid of the Child. If a Woman with Child observes these Rules, she will have reason to hope for a good issue of her Labour: in the mean time let her provide her self of a good Midwife or an ex-

* *Chyrurgeons onely*
Practise in France,
as noted before.

pert and handy * Chyr-
 surgeon, to attend upon
 her as soon as she per-
 ceives

ceives the least pain or throw, of what kind soever for as a small wind, or shake, will serve turn to make ripe fruit fall, so the least Cholick, or any other false pain, may bring forward her Labour, and surprize her unprovided of help: Let us now see what is necessary when she is effectively in Labour.

CHAP. VII.

What is to be done when the Woman first falls in Labour.

A Womans travel is only many pains with reiterated Throws, by which she endeavours to bring forth her Child: It is so called, because both Mother and Child suffer and take much pains in this action. Most people believe that there is no other reason for the cause of this evil, but because God hath so ordained it, and that Woman, according to his Word, must bring forth with pain, because of her sin, according to what is written in the 3^d. Chap. of *Genesis*, *I will greatly multiply thy sorrow and thy conception, in sorrow thou shalt bring forth Children, and thy desire shall be to thy Husband* ——— This curse was indeed very great, because it hath extended to all Women that have brought forth Children since that time, and will continue to all that shall come hereafter. However we find that all the Females of other Animals suffer as much, and are in as great danger of their lives as a Woman, when they bear their young. This persuades us, that,

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besides this precise will of God in respect of a Woman, there must be yet a natural reason, wherefore it cannot happen otherwise, and that is, That it is impossible the Womb, being very strait in comparifon of the Childs bigness, and very sensible, because of its *Membranous* composition, should receive a necessary dilatation for the Childs birth, and such great violence, without suffering considerable pains for it. Now since a Woman, for this cause, cannot shun these pains, she must endeavour to endure them with patience, in the hope of being suddenly delivered from them by a fortunate labour.

As soon as it is known that the Woman is certainly in Labour, by the signs mentioned in the *Second* Chapter of this Book, where both those preceding and those accompanying Labour are recited: of which the principal are, Pains and strong Throws in the Belly, forcing downwards towards the Womb: the dilatation of the inward Orifice, perceived by touching it with the finger: as also the gathering of the Waters, which come before the Head of the Child, and thrusting down the Membranes which contain them, through which between the Pains one may in some manner with the Finger discover the part which presents, especially if it be the Head of the Child, by its roundness and hardness: Then must all things necessary to comfort the Woman in her Labour be got ready; and the better to help her, care must be taken, that she be not strait-faced; a pretty strong Clyster may be given her, or more than one, if there be occasion; which must be done at the beginning

beginning and before the Child be too forwards, for afterwards it is very difficult for her to receive them, because the Gut is too much compressed: they serve to excite it to discharge it self of its excrements, that so the *Rectum* being emptied, there may be more space for the dilatation of the passage, as also to stir up the pains to bear the better downwards, through the endeavours she makes when she is at stool, and the while all necessary things for her Labour should be put in order, as well for the Woman, as the Child, a Midwifes stool, or rather a Pallet-Bed girted, placed close by the fire, if the season require it; which Pallet ought to be so disingaged, as to be turned round about, the better to help the Woman when there is occasion.

If the Woman be *Plethorick, *full of blood: it may be convenient to bleed her a little, for by this means, her Breast being disingaged, and her respiration free, she will have more strength to bear down her pains, which she may do without danger, because the Child being about that time ready to be born, hath no more need of the Mothers blood for its nourishment; which I have often practised with good success: besides this evacuation, often hinders her having a Fever after Delivery, in expectation of which hour she may walk about her Chamber, if her strength permits; and to preserve her strength, it will be convenient to give some good gelly broths, new-laid eggs, or some spoonfuls of burnt or brewed Wine, from time to time, or a Tost dipt in Wine, avoiding at that time solid food. Above all she must be perswaded to hold out her pains, bearing

bearing them down as much as she can, at the instant when they take her: The Midwife must from time to time taste the inward orifice with her finger, to know whether the Waters are ready to break, and whether the Birth will soon after follow: she must likewise anoint all the bearing place with *emollient* Oyles, Hogs-grease, or fresh Butter, if she perceive that they can hardly be dilated, and all the while she must be near her Woman, to observe her gestures diligently, her complaints and pains, for by this they guess pretty well, how the Labour advanceth, without being obliged to taste her body so often.

Mr. *de la Cuisse* deceased, who often slept near the Woman in Labour, was so used to it, that he never awaked till just the Child was in the passage, at which time the Woman changeth her moans into loud cries, which she strongly repeats, because of the greater and more frequent pains which she then feels: the Patient may likewise by intervals rest her self on her bed, for to regain her strength: but not too long, especially little, or short thick Women, for they have alwaies worse Labours if they lye much on their beds in their Travail, and yet much worse of their first Children, than when they are prevailed with to walk about the Chamber, supporting them under their arms, if necessary; for by this means, the weight of the Child (the Woman being on her Legs) causeth the inward orifice of the Womb to dilate sooner than in bed; and her pains to be stronger and frequenter, that her Labour be nothing near so long.

Qualms and Vomiting, which often happen to Women in Labour, ought not to amaze any, for on the contrary, it furthers the Throws and Pains provoking downwards: we shewed the cause of this Vomiting in the *Second Chapter* of this Book, and the reason why it is not dangerous.

When the Waters of the Child are ready and gathered, which may be perceived through the Membranes to present themselves to the inward orifice, of the bigness of the whole dilatation, the Midwife ought to let them break of themselves, and not as some, that impatient of the long Labour, break them; intending to hasten their business, which on the contrary they retard by so doing, before the Infant be wholly in the passage; for by the too hasty breaking of these Waters, which ought to serve him to slide forth with greater facility, he remains dry, which hinders afterwards the Pains and Throws from being so effectual to bring forth the Infant, as else they would have been; it is therefore better to let them break of themselves, and then the Midwife may easily feel the Child bare, by the part which first presents, and so judge certainly whether it comes right, that is with the Head, which she shall find hard, big, round, and equal; but if it be any other part, she will perceive something unequal, and rugged, and hard or soft, more or less according to the part it is. Immediately after * let her dispatch to deliver her. * *That being* Woman, if she be not already, and *the right time* assist the Birth, which ordinarily *when all* happens soon after, if natural, and *men ought to* be delivered, if nature perform its office.

may be done according to the directions in the next Chapter: But if she finds the Child to come wrong, and that she is not able to *Mark, tis not* deliver the Woman* as she ought enough to lay a to be, by helping Nature, and so Woman, if it save both Mother and Child, who might be done both are in danger of their lives, by another wish let her send speedily for an expert and dextrous Chyrurgeon in case to either or the practice, and not delay as too both. many of them very often do; till it be reduced to extremity.

There are many Midwives; who are so afraid that the Chirurgeons should take away their practice, or to appear ignorant before *Good avoiding* them, that they chuse rather to *such Midwives* put all to adventure, then to send *if Women value* for them in necessity: others are *their lives.* too presumptuous, as to believe themselves as capable as the Chirurgeons to undertake all. And some there are indeed, who are not so wicked, yet for want of knowledge and experience in their Art, hope still in vain, that the Child in time may change to a better posture; and that the accidents will cease (if it please God; as they say) and some do maliciously put such a terror and apprehension of the Chirurgeons in the poor Woman, * *For the most* characterizing them like butchers *part undeservedly.* and hangmen, that they chuse rather to dye in Travail with the Child in their Womb, than to put themselves into their hands: But indeed such Midwives do

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more justly deserve this fair title, unless they be-
 have themselves with more prudence and equal
 conscience in so important an occasion, and send * in time * *A necessary note.*
 for some help in their busi-
 ness, before the Child be (as very often) en-
 gaged in a wrong posture in the passage, to as it is
 almost impossible to give it a better, without ex-
 trem violence to the Woman, which is also the
 cause of the death of the Child; and they would be
 so far from losing their reputation, that they
 would augment it, because by so doing, it would
 be manifest they were not ignorant of the danger
 both of time and place; and the Chirurgeon be-
 ing called, as soon as necessity required it, could
 have no just cause to impute any ill consequence of
 the Labour to them, though it should so fall out,
 and their conscience would be discharged of it: for
 in this case (as we have said) both the Mothers and
 Childs life is at stake.

As soon then as the Waters are broke, and the
 Midwife finds the Child to come wrong, she must
 advise the Woman not to forward her Pains, lest
 by bearing down she engage the Child too much in
 the passage, and so give the Chirurgeon more
 pains to turn it, and must send for him as soon
 as may be, for to deliver her as occasion requires,
 and according as shall be directed hereafter in this
 Book. It is now time, after having declared what
 must be done whilst the Woman is in Labour, to
 shew how she must be helped and comforted in a
 natural Delivery.

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This Figure doth very well represent the globe of the Womb, which is opened but in part, to shew in what manner the Child is brought forth in a natural Labour.

A A A, Shews the body of the Womb.

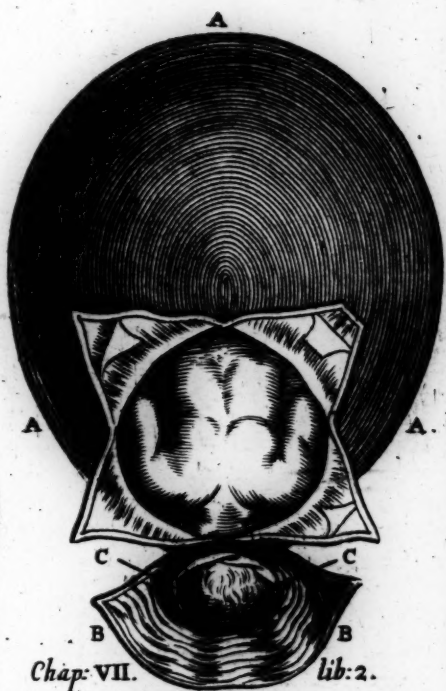
B B, A part of the Vagina, or neck of the Womb, opened just at the inward orifice.

C C, The inward orifice, which surrounds the Childs head like a Crown, wherefore it is called the crownings, or garland.

CHAR. VIII.

Of a natural Labour, and the means of helping a Woman therein, when there is one, or more Children.

WE have already taught that there are four things requisite to a truly legitimate and natural Labour: to wit, That it be at full time. That it be speedy, without any ill accident; That the Child be alive; And that he comes right; all which being found to be so, and after the Waters be broke of themselves, as abovesaid, let the Woman be presently placed on the Pallet-bed, provided for her to this purpose near the fire; or she may, if she likes it better, be delivered in her ordinary bed: for all Women are not accustomed to be



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be delivered in the same posture ; some will be on their Knees , as many in Country Villages ; others standing upright , leaning with their Elbows on a Pillow upon a Table, or the side of a Bed ; and others lying upon a Quilt in the midst of the Chamber : but the best and surest is to be delivered in their Bed , to shun the inconvenience and trouble of being carried thither afterwards ; in which case it ought to be furnished rather with a Quilt than a Feather-bed , having upon it Linnen and Clothes in many folds , with other necessaries to be changed according to necessity , for to hinder the Blood, Waters and other Filth which is voided in Labour , from incommoding the Woman afterwards.

The Bed must be so made , that the Woman being ready to be delivered , should lye on her back upon it , having her body in a convenient Figure , that is , her Head and Breast a little raised , so that she be neither lying nor sitting ; for in this manner she breathes best , & will have more strength to help her Pains , than if she were otherwise , or sunk down in her Bed. Being in this posture , she must spread her Thighs abroad , folding her Legs a little towards her Buttocks , somewhat raised by a small Pillow underneath , to the end that the *Coccyx* , or Rump , should have more liberty to retire back , and have her Feet stayed against some firm thing ; besides this , let her hold some persons with her hands , that she may the better stay her self during her Pains. She being thus placed near the side of her Bed (with her Midwife by , the better to help upon occasion) must take courage and help her Pains the best she can , bearing them down when they take

take her, which she may do by holding her breath, & forcing her self all she can, just as when she goeth to Stool; for by such endeavors, the *Diaphragma* being strongly thrust downwards, doth force down the Womb and Child in it; in the mean time the Midwife must comfort her, and desire her to endure her Labour bravely, putting her in hopes of a speedy Delivery. Some would have another Woman at that time to press the superior parts of her Belly, and so to thrust gently the Child downwards; but I am not of their opinion, because such compressions will rather hurt then profit, by indangering the bruising of the Womb, which is extream sore at that time; and I have seen some Women, very ill afterwards, for having been used in this manner. But the Midwife may content her self only (having neither Ring nor Bracelet on, and her Hand anointed with Oyl or fresh Butter) to dilate gently the inward orifice of the Womb, putting her Fingers ends into its entry, and stretching them one from the other, when the Pains take her, for to endeavour to forward the Child, & thrusting by little and little the sides of the Orifice, towards the hinder part of the Childs Head, anointing these parts also with fresh Butter, if it be necessary.

When the Infants Head begins to advance into this inward Orifice, tis commonly said it is crowned, because in girds and surrounds it, just as a Crown, and when it is so far that the extremity begins to appear manifestly without the Privy parts, it is then said that the Child is in the Passage, and the Woman in Travail imagines (although untruly, and it may be is not so much as touched by her)

her) that her Midwife hurts her with her Fingers, finding her self as it were scratched and pricked with pins in those parts, because of the violent distention and sometimes Laceration, which the bigness of the Childs head causeth there,

When things are in this posture, the Midwife must seat her self conveniently to receive the Child, which will soon come, and with her Fingers ends, her Nails being close pared, endeavour to thrust (as abovesaid) this crowning of the Womb back over the Head of the Child, and as soon as it is advanced as far as the Ears, or thereabouts, she may take hold of the two sides with her two hands, that, when a good Pain comes she may quickly draw forth the Child, taking care that the Navel string be not then intangled about the Neck, or any other part, lest thereby the After-burthen be pulled with violence, and possibly the Womb also to which it is fastened, and so cause flooding, or else break the string, whereby the Woman may come to be more difficultly delivered. It must also be observed that the Head be not drawn forth straight, but shaking it a little from one side to the other, that the Shoulders may the sooner and easier take its place, immediately after it be past, which must be done without losing any time, lest the Head being past, the Child be stopp'd thereby the bigness and largeness of the Shoulders, and be in danger of being suffocated and strangled in the passage, but as soon as the Head is born, if there be need, she may slide in her Fingers under the Arm-pits, and the rest of the Body will follow without any difficulty.

As soon as the Midwife hath in this manner drawn

drawn forth the Child, she must put it on one side, lest the Blood and Waters, which follows immediatly after, should incommode it, or it may be choak it, by falling into its Mouth or Nose, as it would do, if it were laid on the back; after which there remains nothing but to free her from the After-burthen, which I will show how in the next Chapter: but before that, let her be very careful to examine, whether there be no more Children in the Womb; for it happens very often that there are two and sometimes more, which she may easily know, by the continuance of the Pains after the Child is born, and the bigness of the Mothers belly; besides this she may be very sure of it, if she puts her Hand up the entry of the Womb, and finds there another Water gathering, and a Child in it presenting to the passage; if it be so, she must have a care not to go about to fetch the After-birth, till the Woman be delivered of all her Children; if she have never so many, because Twins never have but one Burthen, to which there are fastned as many Strings and distinct Membranes as there are Children; and if one should go to draw it forth as soon as the first is born, the rest would be in danger of their lives, because that part is very necessary to them, whilst they are in the Womb, and besides it endangers a flooding. Wherefore the first String must be cut, being first tyed with a thread ~~three~~ or ~~four~~ double, as we shall show more exactly hereafter, and fasten the other end with a string to the Womans Thigh, not so much for fear that the String should enter again into the Womb, as to prevent the inconvenience it may cause to the Woman by hanging between her

Thighs;

unnatural Deliveries. 189

Thighs; afterwards, this Child being removed, they must take care to deliver her of the rest, observing all the same circumstances as was to the first; which being done, it will be then convenient to fetch the After-birth, as we shall shew in the following Chapter.

CH A P. IX.

How to fetch the After-burthen.

MOST Animals, when they have brought forth their young, cast forth nothing else but some Waters, and the Membranes which contained them; but Women have an After-birth, of which after Labour they must be delivered, as of a thing useless and inconvenient: Wherefore as soon as the Child is born, before they do so much as tie or cut the Navel-string, lest the Womb close, they must without losing time free the Woman from this fleshy mass, which was destined to furnish the Infant with Blood for its nourishment, whilst it was in the Womb, and which at that time is called with much reason the After-birth, because it follows the Child, and is to the Woman like another Birth; for being brought forth, she is totally delivered.

To perform this, the Midwife having taken the string, must wind it once or twice about one or two of her Fingers of her left Hand joyned together, the better to hold it, with which she may then draw it moderately, and with the right hand

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she may only take a single hold of it above the left near the Privities, drawing likewise with that very gently, resting the while the Fore-finger of the same hand extended and stretched forth along the String towards the entry of the *Vagina*, as may be seen in the annexed Figure; alwaies observing, for the more facility, to draw it from the side where the Burthen cleaves least, for in so doing the rest will separate the better; just as we see a Card which is glewed to any thing, is better separated from the place where it begins to part, then where it is close joyned.

Above all things care must be taken, that it be not drawn forth with too much violence, lest by breaking the String near the Burthen, as sometimes happens, you be obliged to put up the whole Hand into the Womb, to deliver the Woman; or that the Womb, to which this Burthen is sometimes very strongly fastened, be not drawn forth with it, as hath been done to some that I knew: As also in drawing it forth with too much violence, there may happen a very great flooding, which would be of a dangerous consequence: Wherefore for these reasons it must be carefully shaken, and gently drawn forth by little and little after the manner we have just now described; and to facilitate the better its expulsion, the Woman may blow strongly the whilst into her Hands shut, just as one would into the mouth of a Bottle to know whether it be broke; or she may put her Finger into her Throat, as if she would excite vomiting; or she strive as if she were going





to Stool; bearing alwaies down; and holding her Breath, as she did to bring forth her Child: All these motions and different agitations produce the same effect, and loosen and expel the After-birth out of the Womb. When all these circumstances have been observed, if notwithstanding you meet with difficulty, you may, if need be, after that you know on which side the After-birth is situated, command an experienced Nurs-keeper to press the Belly lightly with the flat of her Hand, directing it gently downwards by way of friction, above all being careful not to do it too boisterously. But if all this be in vain, then must the Hand be directed into the Womb, to loosen it and separate it after the manner hereafter mentioned in the thirteenth Chapter of this Book, where we show the way how to draw it forth when the String is broke.

As soon as the Woman is delivered of both Child and Burthen: it must then be considered, whether there be all, and care had that not the least part of it remain behind, not so much as the Skirts or any Clods of Blood; which ought all to be brought away with the first; for otherwise, being retained, they cause great Pains: all which being done, things fit for Mother and Child, in this condition, must be provided, which we will mention in their place.

When a Woman hath two Children, she must be delivered in the same manner as if she had but one, observing only, for the reasons given in the precedent Chapter, not to fetch the Burthen, till all the Children are born; and then it may be done without danger, shaking and drawing it alwaies gently,

gently, sometimes by one String, sometimes the other, and sometimes by both together, and so by turns till all is come, proceeding in it according to the directions already given.

When the Infant comes right and naturally, the Woman is brought to Bed and delivered with little help, observing what hath been taught in the two last Chapters, of which the meanest Midwives are capable, and oft times for want of them, a simple Nurs-keeper may supply the place: but when it is a wrong Labour, there is a greater mystery belongs to it, for then the skill and prudence of a Chirurgeon is for the most part requisite. Which we intend now in the remaining part of this Book to treat of.

C H A P X.

Of laborious and difficult Labours, and those against Nature, their Causes and Differences, together with the means to remedy them.

FOr the easier and better explaining these things, we say, that there are three sorts of bad Labours: to wit, the Painful or Laborious; the Difficult; and that which is altogether contrary to Nature.

The Laborious is a bad Labour, in which the Mother and Child (though it comes right) suffer very much, and are harassed more than ordinary:

The Difficult is not much unlike the first, but besides

besides is accompanied with some accident which retards it, and causeth the difficulty: but the wrong Labour, or that against Nature, is caused by the bad scituation of the Child, and can never be helped but by manual Operation, or the Chirurgeons hand. In the laborious and difficult Labours, Nature alwaies doth the Work, being a little assisted: but in that contrary to Nature, all its endeavors are vain and useles, and there is then no help but in an expert Chirurgeon, without whom she must certainly perish.

The Difficulties of Labour proceed either from Mother, Child, or both.

From the Mother, by reason of the indisposition of her Body; or it may be from some particular part only, and chiefly the Womb: or also from some strong passion of the Mind, with which she was before possesst.

In respect of her Body, either because she may be too Young, having the Passages too strait, or too old of her first Child; because her parts are too dry and hard, and cannot be so easily dilated, as happens also to them, which are too lean: they who are either small, short, or mishapen, as crooked Women, have not a Breast strong enough to help their Pains, and to bear them down; nor those that are weak, whether naturally or by accident, and crooked persons have sometimes the Bones of the Passage not well conformed: the tender and too apprehensive of Pain, have more trouble than others, because it hinders them from doing their endeavour: and they likewise who have small Pains and slow, or have none at all. Great Cholics hinder Labour also, by preventing the true

Pains: all great and acute diseases make it very troublesome and of a bad consequence, according to *Hippocrates's* opinion in the 30th Aphorism of the Fifth Book; *Mulierem gravidam morbo quopiam acuto corripit, lethale.* As when she is taken with a violent Fever, a great Flooding, frequent Convulsions, Dysentery, or any other great distemper. Excrements retained, cause much difficulty, as a Stone in the Bladder, or when it is full of Urine, without being able to void it; or when the great Gut is repleted with hard Ordure, or the Woman troubled with great and painful Piles, and their ill situation sometimes retard it extremely.

As touching the difficulty proceeding from the Womb only, it must either be from its bad Situation or Conformation, having its Neck too strait, hard, or callous, whether naturally, or by any accident, as having had there a Tumor, Apostume, or Ulcer, or Superfluous flesh, whether on the Neck, or inward Orifice: or because of any *Cicatrice* caused by a preceding bad Travail.

Besides these, those things which are or may be contained in the Womb with the Child, do also cause difficult Travail; as when the Membranes are so strong, that they cannot be broken, which sometimes hinders them from advancing into the Passage; or so tender, that the Waters break too soon, for then the Womb remains dry: When there is a *Mole*; or the After-burthen comes first, which alwaies causeth flooding, and certainly the death of the Infant, if the Woman be not presently delivered of them by Nature or Art; yea and when the Navel-string comes first, the Child is suffocated, if not speedily after born; strong Passi-
ons

ions of the Mind do likewise contribute much to it, as Fear, Sorrow, and others the like. The Woman that miscarries hath more pain than a Woman at her full time, as also than one that is hurt, although she be very near her time.

As to the hinderances caused by the Infant, they are, when either its Head or whole Body are too large; when the Belly is *Hydropical*; when it is monstrous, having two Heads, or being joyned to another Child, Mole, or any other strangething; when it is dead, or so weak, that it contributes nothing to its Birth; when it comes wrong; or when there are two or more; besides all these different difficulties of Labour, there is yet one caused by the Midwife's ignorance, who for want of understanding her business, instead of helping, hinders Nature in its work.

Let us now treat of the means, by which all these may be prevented, and the Woman succoured in her bad and difficult Labour, as may easily be done, if we perfectly know the causes of all these difficulties; as when it happens by the Mothers being too young and too strait, she must be gently treated, and the passages anointed with Oyl, Grease, and fresh Butter, using these things a long time before the Hour of Labour, to relax and dilate them the easier, lest there should happen a rupture of any part, when the Child is born: for sometimes there happens a dilaceration to the Fundament, by which both are rent into one outwardly. If a Woman be in years of her first Child, let her lower parts be likewise anointed to mollify the inward orifice, and the *Vagina* or Neck of the Womb, which being more hard and *callous*, do

not easily yield to the necessary distension of Labour; which is the cause why such Women are longer in Labour than others, and why their Children (being forced against the inward orifice of their Womb, which is, as we have said, a little callous, and also for remaining long in the passage) are born with great Bumps and Bruises on their Heads: Small and misshapen Women should not be put to Bed, till at least their Waters be broke; but rather kept upright and walking about the Chamber, if they have strength, being supported under the Arms; for in that manner they will breath more freely, and mend their Pains better, than on the Bed, where they lye all on a heap. Let those that are very lean, also moisten these parts with Oyls and Oyntments, to make them more smooth and slippery, that the Head of the Infant and the Womb be not so compressed and bruised by the hardness of the Mothers bones, which form the Passage.

The weak Woman should be strengthened, the better to support her Pains, giving her good jelly Broths, with a little Wine and a Tost in it, or other good things as the case requires.

If she fears the Pains, let her be comforted, assuring her, that she will not endure many more, but be speedily delivered: On the contrary, if her Pains be slow and small, or none at all, they must be provoked by frequent Clysters a little strong, that so they may be excited by the needings at Stool, and afterwards let her walk about her Chamber, that the weight of the Child may also help a little. If the Woman floods, or hath Convulsions,

vulſions, (which is by many too long neglected) ſhe muſt be helped by a ſpeedy Delivery, as we have already declared, and ſhall repeat hereafter in its proper place. If ſhe be coſtive, let her uſe Clyſters, which likewiſe may diſſipate a Cholick, at thoſe times very troubleſome, cauſing great and uſeleſs Pains, very hurtful, becauſe they ſleet to and again through the Belly, without bearing down, as they ſhould do. If ſhe cannot make water, becauſe the Womb bears too much on the Bladder, let her try, by lifting up her Belly a little, or elſe by introducing a Catheter into her Bladder, draw forth her Urine.

If the difficulty or ſlowneſs of the Labour comes from the ill Poſture of the Woman, let her be placed in a better, more convenient to her Habit and Stature, obſerving the circumſtances given in the *First* Chapter of this *Second* Book. If ſhe be taken with any diſtemper, ſhe muſt be treated for it according to its nature, with more caution than at another time, having alwaies regard to her preſent condition. If it proceed only from the indifpoſitions of the Womb, either from its oblique ſituation, it muſt be remedied as well as can be, by the placing of her Body accordingly. If it be by its vicious conformation, having the Neck too hard, and too callous, and too ſtrait, it muſt be anointed with Oyls and Ointments, as above directed.

If it come from a ſtrong Cicatrice, which cannot be mollified, of a preceding Ulcer, or a Rupture of a former bad Labour ſo agglutinated, it muſt be ſeparated with a fit Inſtrument, leſt another Laceration happen in a new place, and leave

the Woman in a worse condition than before; it must be made in that place where the case most requires it; taking care that it be not upwards, because of the Bladder. If the Membranes be so strong, as that the Waters do not break in due time, they may be broken with

** Let the Midwife be first well assured.* the Fingers, * provided the Child be come very forward into the Passage, and ready to follow presently after; for otherwise

there is danger, that by breaking these Waters too soon, the Child will remain dry a long time; and to supply that defect, you must moisten the parts with Fomentations, Decoctions and Emollient Oyls; which can never be so well, as when Nature doth its own work with the Waters and ordinary Slime, which alwaies happen well when they come in time and place.

Sometimes these *Membranes* with the Waters press three or four Fingers breadth out of the body before the Child, resembling a Bladder full of Water; there is then no great danger to break them, if they be not already; for when it so happens, the Child is alwaies ready to follow being in the Passage: but above all be careful not to pull it with your Hand, lest thereby you loosen, before its time, the After-burthen, to which it adheres very strongly. If the Navel-string comes first, it must be presently put up again, and kept up if possible, or else the Woman must be immediately delivered: But if the After-burthen comes first, it must never be put up again; for being come forth, it is altogether useless to the Infant, and would be but an obstacle and hinderance in the way; if it were put up

tip in this Case, it must be cut off, having tyed the Navel-string, and afterwards draw forth the Child as soon as may be, lest that he be suffocated.

If the Woman hath fallen, or is hurt, let her immediately keep her Bed and take her rest: If it be any Passion that retards the Labour, and cannot totally be overcome, let them endeavour to moderate it: If it be Shamefastness or Modesty, the persons who are the cause of it must quit the Chamber; and if timidity and Fear of Pain, she must be advised, that it is the will of God it should be so, and that her Labour will not be so bad as she imagines, perswading her to submit to the necessity, by the consolation of the unfortunate, whose pain seems always more supportable by the consideration that it is common; so she must be informed that others endure the same Pain, and greater than hers: if she be melancholy, let her be diverted by some good news, promising her such a Child as she desires; and in a word (though she suffer much) she must consider it but as a bad journey, which one quarter of an hour of good Weather makes one forget all past, as she will; when she is brought to bed, assuring her chiefly that she is in no danger, especially when it is not very apparent, for then one ought to acquaint her with it, that she may settle both her temporal and spiritual affairs.

When the difficulty is only caused by a dead Child, the method mentioned in the natural Labour must be observed; and besides, the Woman must do all she can to further her Delivery, because the Child can do nothing, nor can it when it is very weak: She must take the while some Comfortatives to prevent fainting, because of the

putrid vapours ascending from the dead Child; but when it hath so great a Dropsy, either in the Head or Belly, as that it cannot be born, because of the great distension and bigness of these partss then we are obliged to open these parts to let out the Water: And if it be of such enormous bigness, either Head or Body, or that it have two Heads, or is joined to another Child, or to a big Mole, there is a necessity for to save the Mother, either to dilate the passage proportionable to the bigness of the monstrous Child (if it be possible) or else, which is better, to draw forth the Child by pieces, to prevent the Mothers perishing together with the Child, which else would certainly happen, if this course be not taken: And if there be two Children, the Rules given in the Eighth Chapter of this Second Book must be observed. But if the Midwife cannot remedy all these accidents, she must then readily send for * an expert Chirurgion for his advice, or to do what he thinks fit. Let us now pass to Labours contrary to Nature, which can never be done without Manual Operation, and show what is then to be done.

* By all which may be learnt, That if the Midwife cannot lay the Woman assoon as, or soon after the Water is broke, she ought in time to send for advice and help.

CHAP. XI.

Of unnatural Labours, where Manual Operation is absolutely necessary, and what Observations the Chirurgion must make before he goeth about it.

Those Labours which absolutely require Manual Operation are, when the Child comes wrong. Hippocrates in his Book, *De Natura Pueri*, and in that *De Superscratatione*, admits but of three general ways for a Child to be born; to wit, with the Head first, which is the sole * natural Figure, when it comes right; the second with the Feet; and the third with the Side or across: which two last are quite contrary to Nature. But to make it more plain, we say, That a Child may come wrong four several general waies, which are; First, any of the fore-parts of the Body. Secondly, any of the hinder-parts. Thirdly, either side. And Fourthly, the Feet. Now just as there are four Cardinal points, to which all the rest of the thirty-two Winds may be reduced on the Compass, and to one of the four more than to the other, according as they participate of more or less of that Point: so likewise all the particular and different wrong Postures, that a Child may present,

For if any part but the Crown, so that the Body follow not in a straight line, 'tis a wrong & difficult Birth, though the Head presents first.

sent, can be reduced to the abovenamed four general waies, according as they approach more to the one than the other of them. And as the number of the several wrong Births is very great, we will be contented only to treat particularly of each of the principal of them; because if one be well informed of these, they may easily remedy the rest, which are of no great consequence; but before we mention the means how, it will be convenient to shew what conditions are

* *Physician or any else*, requisite in a * *Chirurgeon*, that *practiseth this art*: that would apply himself to this Operation, and the observations he ought to make before he undertakes it.

These conditions either respect his Body or his Mind; in respect of his person, he must be healthful, strong and robust; because this is the most laborious and painful of all the operations of Chirurgery; for it will make one sometimes sweat, that he shall not have a dry thread, though it were the coldest day in Winter, because of the great pains and difficulty he ordinarily meets with, as *Fabricius of Aquapendente* testifies; confessing that he hath often been so weary and tired, as that he hath been forced to leave the work for his men to finish. He ought to be well shaped, at least to outward appearance; but above all, to have small hands, for the easier introduction of them into the Womb when necessary; yet strong, with the Fingers long, especially the Forefinger, the better to reach and touch the inner Orifice: He must have no Rings on his Fingers, and his Nails well pared, when he goeth about the work; for fear of hurting the

the Womb: He ought to have a pleasant countenance, and to be as neat in his clothes as in his person, that the poor Women who have need of him, be not affrighted at him. Some are of opinion that a Practitioner of this Art ought on the contrary to be slovenly, at least very careless, wearing a great Beard, to prevent the occasion of the Husbands jealousy that tends for him. Truly some believe this policy augments their practice, but 'tis fit they should be disabused: for such a Posture and Dress resembles more a Butcher than a Chirurgion, whom the Woman apprehends already too much, that he needs not such a Disguise: Above all, he must be sober, no Tippler, that so he may at all times have his wits about him; he must be discreet, modest, and secret, never discovering to strangers those incommodities and diseases of Women which come to his knowledge; He must be sage, prudent, and judicious, to conduct him alwayes in his Operations, with good reason: He must be pitiful, yet not so as to distract or hinder him from his duty, when the case requires; as also so patient, as not to precipitate any thing, but taking time sufficient to consider what is first to be done. He must not be angry with the poor Woman, though she exclaims against him, or the other Women during the Operation; for the Pains of the one, and the compassion of the rest, oblige them to it without other cause. He should be a good Christian, of a well regulated Conscience, and do his best endeavour to bring the Children * alive:

* And therefore undertake what he can safely perform; and what he cannot, leave to others that way, for life is not to be played with. He

He must deliver poor Women *gratis*, and treat them as tenderly and with as much humanity as the Rich, extorting nothing from them, but be content with reasonable satisfaction, as they are willing and able to give, and not use them like a *Turk* or *Arab*, as some do, who as soon as they have done their work, whether well or ill, will be paid without delay, and that with so much ill manners and importunity, that they force the poor people presently to borrow the money, when they have not enough to satisfy their desires, and take from them to the last Penny, to satisfy their tyrannical avarice: which proceedings are very unworthy an honest man.

In fine, a Chirurgion indued with all these good qualities must be for his accomplishment and future perfection, very knowing and expert in his Art, and chiefly in these Operations.

There are many who believe it an easie matter to deliver a Woman; because Women usually practise it. In effect, there is no great mystery, when all things come right and well: But when they come wrong and contrary to Nature, it is most certain that it is the most difficult and laborious of all Chirurgicall Operations, as is well known to such as practise it. It is very good to consider the consequences of it; for in all others, for which recourse is had to a Chirurgion, the single life of the Patient only is under his care; but in Deliveries, there is the Mothers, and one Childs life at least, and sometimes more at stake: And it hath been often seen, that one single fault in this Operation hath caused many disorders at one time; so that one may say very justly touching delivering of Women

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Women in wrong Labours, *Hec opus, hic labor est.*

Now the Chirurgeon qualified as above said, who is only fit for the work (to behave himself as he ought) must make some Observations before he undertakes it; first, whether the Woman hath strength enough to endure the Operation, which he may guess by the Pulse, if strong or weak, unequal or intermittent: Whether her Face and chiefly her Eyes be dejected, her Speech faint, the extremities of her Body cold; Whether she often faints away with cold Sweats, hath Convulsions with loss of sense; in short, If every circumstance persuades that the Operation would be in vain, 'tis better to let it alone, than she should dye under his hand, and he be blamed for it, and incur the name of Butcher, as is most certain when such a misfortune happens: however if there be any hope, though never so little, either for Mother or Child, we are obliged in Conscience to do what Art commands, and not as some Politicians, who will rather suffer a poor Woman to dye without assistance, than undertake a doubtful Operation. Wherefore 'tis better to attempt an Operation of an uncertain consequence, than to

abandon the Sick to a certain despair; for ** A sufficient justification for conscientious Practisers, against the malignant tongues of the ignorant.*

but before the Chirurgeon undertakes it, let him give his Prognostick of the great danger of death, both Woman and Child is in, which he must acquaint the Husband and Friends with, and the Woman her self, if he thinks that she is able to bear it, that so she may receive

receive the Sacrament before the Operation, lest she be not capable of it afterwards; because of the labourousness of the Operation, in which she may possibly dye, as it hath sometimes happened; but when the Woman hath strength enough, the Chirurgeon must not delay his help, for fear it abate, or be totally dissipated. To which purpose, being well assured of her strength, he must enquire of the Woman, her Midwife and Friends, Whether she be at her full time, or hath received any hurt, which he may also perceive by the Signs, observing in what posture the Child presents, & what circumstances, Whether alive or dead; and but one or more? all which being examined, he must try to perswade the Woman of the impossibility of her being delivered without his help; and to resolve to put her self into his hands, which he may do by fair words without frightening of her, perswading her that the Operation is nothing so painful as she may imagine, and in fine that for Gods sake, her own, and the Childs, she is obliged to suffer it, for else she and her Child may both perish.

The Woman being thus resolved, he must place her cross the Bed, that he may operate the easier, she must lie on her Back, with her hips raised a little higher than her Head, or at least the Body equally placed, when it is necessary to put back or turn the Infant, to give it a better posture; but if he resolves to draw it forth, he must place the Woman so as we have directed in the natural Labour, which is with her Head and Breast a little elevated above the rest of her Body, that she may fetch her breath with more facility, and help to the exclusion of the Infant by bearing down, when the

Chirur,

Chirurgeon bids her. Being thus situated, she must fold her Legs so as her Heels be towards her Buttocks, and her Thighs spread, and held so by a couple of strong persons. There must be likewise others to support her, under her Arms, that her Body may not slide down, when the Child is drawn forth, for which sometimes a great strength is required; the Sheet and Blankets must cover her Thighs for decency sake, in respect of the Assistants, and also to prevent her catching cold, the Chirurgeon herein governing himself as well with respect to his own convenience, the facility and safety of his Operation, as to these things.

Some would have the Woman bound in this posture, that (as they say) she being more firm and stable, the work may be done with greater certainty: but such Ligatures are so far from that, that on the contrary they are very prejudicial; for the Woman being so fixed, and constrained as on a Rack, she cannot raise her self, nor slide down, or be lifted up, when the Chirurgeon finds occasion for it, to render his Operation less difficult, which usually he doth by partly putting back, partly drawing forth, sometimes directly, sometimes obliquely, for which reason her Body ought to be at liberty, only held in a posture convenient to these several intentions by her Friends, according to his directions: but if she must needs be bound, let it be with good reasons to persuade her patiently to endure her Labour, and to contribute her whole strength to the Operation, promising her the speediest Delivery possible.

Let the Chirurgeon then anoint the entrance of the Womb with Oyl or fresh Butter, if it be necessary,

cessary, that so he may with more ease introduce his hand, which must likewise be anointed, having the conditions above specified: after which he must manage his Operations after the manner I shall direct in each of the following Chapters, having first recited the marks by which may be known whether the Child be alive or dead.

CHAP. XII.

The Signs to know whether the Child be alive or dead.

IF there be any Case, wherein a Chirurgion ought to make the greatest reflection, and use most precaution in his

** This is not so necessary to those Practitioners which can fetch a Child coming right, or with the arm, without hooks or sharp instruments, as the Translator of this Book and his Father and Brother can.*

Art, it is this, * to know whether the Infant in the Womb be alive or dead; for there have been many deplorable examples of Children being drawn forth alive, after they have been thought to

be dead, with both Arms or some other Limb lopt off, and others miserably killed by the use of Crochets, which might have been born alive, if they had not been mistaken. Wherefore before he resolves on the manner of laying the Woman, to avoid the like misfortune, and the disgrace of being author

thor of such a pittiful Spectacle, let him do his utmost endeavour not to be so deceived, and to be fully satisfied, whether the Child be alive or dead; alwaies remembring that in this case timidity is more pardonable than temerity; that is, it is better to be deceived in treating a dead Infant, as if it were alive; than a living one, as if it were dead.

The Child may be known to be alive, if it be at the full reckoning; if the Woman hath received no hurt; if she hath had her health well all her going with Child; if she be at that present in good health, and very sure if she feels it stir, which may be known by the Mothers relation: and the Chirurgion may be better assured of it, if he feels it stir himself, laying his Hand on the Mothers Belly, to whose relation he must not alwaies trust; for I have sometimes delivered Women, whose Children had been dead above four days (as may easily be judged by their corruption) who notwithstanding affirmed (although untruly) that they felt them stir but a little before they were delivered; and others again, who were alive, yet they never perceived them to stir in *three* or *four* days before, as they confessed. If the Chirurgion cannot be assured by the Infants motion that it is alive, he may, as soon as the Waters are broke, gently put up his hand into the Womb, to feel the pulsation of the Navel-string, which he will find stronger the nearer he feels it to the Infants Belly; or if he meets with a Hand, he may feel the Pulse, but their Pulsation is not so strong as the Navelstrings, by which it is best to be known: if then he finds thus the beating of the Pulse,

Pulse, he may be confident the Child is alive; as also if by putting his Finger into its Mouth, he perceives it to stir its Tongue, as if it would suck.

But on the contrary the Child is dead, if it hath not a long time stirred; if there flowes from the Womb stinking and cadaverous humours; if the Woman feels great pains, and a great weight in her Belly; if it be not supported, but tumbles alwaies on that side as she layes her self: if she faints
** Not alwaies a sign.* ** or hath Convulsions;* if

the Navel-string or *Secundine* hath been a good while in the world; or if by putting his Hand into the Womb, he finds the Child cold, and the Navel-string without Pulse, and its Tongue immoveable; and feeling the Head he finds it very soft, chiefly towards the Crown, where likewise the Bones are open, and riding the one upon the other at the *Sutures*, because the Brains shrink, and are without Pulse when the Child is dead; which corrupts more in two days in the Womb than it doth in four after it is born; which the Heat and Moistness of the place causeth, the two principles of Corruption.

But one may only conjecture it, if the Woman hath been hurt, or floods much, &c. be not at her full time; if her Waters broke four or five days before; if her Breasts flag; if her Complexion be of a lead colour, her Countenance languishing and dejected, and if her Breath stinks. We say that these things may only make us conjecture it, but not, as the rest, certainly conclude it; many of which happening together in one person, assures us that the Child is dead, for want of which it cannot be very certain; wherefore

wherefore (as I have said) 'tis good to be very careful before they undertake it, that so they may avoid the abovesaid scandals.

CHAP. XIII.

How to fetch the After-burthen when the string is broke.

WE have placed the present way of extracting the Afterbirth amongst unnatural Deliveries, because 'tis not sufficient to esteem it a good Labour, that the Child be well born, unless also the Afterbirth be well come away. In respect of the Child it may be called natural; because after his Birth, it hath no more need of the Burthen: but in respect of the Woman, it is very unnatural. I would therefore first treat of this bad Labour; because it participates of a natural Labour in respect of the Child, who is in no danger being born. After that I will come to those in which both Mother and Child are in very great danger, if not speedily and skillfully helped.

I have already shewed in the Ninth Chapter of this Book, how a Woman must be delivered in a natural Labour, where you may find the means; but sometimes the Midwife by endeavouring it, breaks the String with pulling too strongly, or because it is very weak; or else so putrified when the Child is dead, that the least pull breaks it off close at the Burthen, which by that means is left behind

in the Womb, or because it cleaves too strongly, or the Woman is weak and cannot expel it, being much tired by a long Labour; or because it was not speedily after Labour drawn forth, the Womb closeth so, as leaves it no passage, nor can it without much difficulty be again dilated to have it fetch'd, because it remains dry, after the natural slime and humidities, which usually flow in Labours, are sometimes past.

Since it is a verity indubitable, that the Afterbirth remaining behind after the Child is born, becomes an useless Corps, capable of destroying the Woman, we must take care that it be never left, if possible. Wherefore having endeavoured to bring it away, as we have directed in the aforementioned Chapter, and the Navel-string happen to break near the Burthen, you must immediately, before the Womb closeth, introduce your Hand into it, being well anointed with Oyl or fresh Butter, your Nails close pared, for to separate it from the Womb gently, and draw it forth together with the Clods of Blood that are there. When the Navel-string is not broken, it will easily conduct the Hand by following of it to the place, where the Burthen is situated; but when it is broken, we have no longer this guide, wherefore you must be then very careful, that you be not deceived in taking one part for another; as I once saw a Midwife pull the Womb near the inward Orifice, instead of the Burthen which was behind: but when she perceived all her endeavours vain, except it were to make the poor Woman to suffer extremely, she yielded her up to me, confessing her incapacity, although she had

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had vaunted * before, that she was more capable in her Art than any Chirurgeon.

* *It seems Midwives in other Countries, as well as some in England, have that dangerous vanity.*

As soon then as you have introduced your Hand into the Womb towards its Fund, or bottom, you will find the Burthen; which you may know by a great number of little inequalities, which are always made there by the roots of the *Umbilical* Vessels, on the side where they terminate, which makes it to be easily distinguished from the Womb; if it yet cleave to it, notwithstanding that it is then a little wrinkled and uneven; because its Membranes, which were very much enlarged, contract themselves immediately after the Child and its Waters which kept them extended,

are excluded: * but they that are * *Be careful expert in this Art can easily judge of those that of it. If you find the Burthen are not.*

wholly loosened from the Womb, it will not be difficult to draw it forth, when you have got it in your Hand: but if it cleaves, finding the side where it sticks least, begin there to separate it gently, by putting some of your Fingers between it and the Womb, continuing by little and little to do so, till it be quite loose, and afterwards to draw it forth very carefully; observing the whilst (if it cannot be otherwise) rather to leave some part of it behind, than to scrape or scratch the least part of the Womb, for fear of a flooding, inflammation, or Gangrene, which cause death:

being also careful not to draw it forth till it be wholly or the most part of it separated, for fear of drawing forth the Womb with it, and preserving it as whole as these reflections will permit, because of shewing it to the company, that they know the Operation is well done.

When the Chirurgeon finds not the Womb open enough for to direct his hand immediatly into it, let him

** Danger in delays.* presently anoint

all the Womans Privities with Hogs-grease, that they may be dilated with more ease, afterwards let him by little and little put up his Hand, but without much violence: the Woman may likewise contribute to this dilatation, as also to the exclusion of the Burthen, if she bears strongly down, holding her Breath, and exciting her self to vomit, or sneeze, and do those other things directed in the above mentioned Chapter; but if notwithstanding all this she cannot void the Afterbirth, and if the Womb cannot be dilated enough to fetch it, or that it cleaves so fast, as it cannot be separated, then to avoid a greater mischief, we must leave it to Nature, assisting her with remedies, which suppurates; wherefore Injections into the Womb are proper, made of *Mallows, Marsh-mallows, Peltory, and Linseed*, in which is mixed a good quantity of *Oyl of Lillies*, or fresh Butter. This injection softens and tempers, and by moistning and mollifying, makes the Orifice to be the easier dilated, and helps by Suppuration the loosenings of the Burthen. And to hasten the expulsion of it, give her a strong Clyster, that so, by the motions to go to Stool, it may

may cause it to be voided, as it hath arrived to many, that have rendered it in the Bed-pan, and sometimes when they have least expected it.

One may at the same time, to prevent a Fever and many other accidents which usually happen, bleed her in the Arm, or Foot, according as it may be necessary and convenient, and strengthen her, that the *Fœtus* and cadaverous Vapours, coming from the putrification of the Burthen, ascend not to the Noble parts, which may be done by good Cordials often used, not such as are made of *Theriack*, *Mithridate*, or the like, for which no reason can be given, but their specifick or rather imaginary Faculties, and are fitter to cause Vomiting than to comfort the Heart: but true Cordials are such as yeeld good nourishment, and at the same time comfort the Stomach, without nauseating it, as those Drugs do which are only good for them that sell them.

Wherefore let her have good Broaths and Gellies; she may drink *Limonade* or *Orengade*, or have in her *Pisjan* Syrup of *Lemons* or *Pomgranats*, or from time to time (if she be weak and free from a Fever) a little Wine and Water mixed, which we say is the best, (*in some cases, but not always*) and most natural of all Cordials; besides other Remedies may be provided, according to the accidents which happen, by reason of the staying behind of the Burthen, always endeavouring to bring it away as soon as possible, for as long as it stays in the Womb, the Woman feels continually great Pains, almost like to them before her Child was born, although there remained but a small piece of it, and until the whole be voided: the

Pains will still be repeated, although in vain, unless the matter be well disposed before; but the lesser the piece is of the Burthen retained, the more difficult it is sometimes to be expelled; because the impulses, which the Woman can make by helping her Throwes, are not so great, when the matter contained in the Womb is small, as when it is of a considerable bigness; for then it is more strongly thrust and compressed: which is the reason why a Woman miscarries with greater difficulty, than when brought to Bed at her full time.

There are many Midwives, who having broken the Navel-string, as *This may happen to a good Midwife, but the fault is when they do not discover it, that seasonable help may be applied.* * above said, leave their work imperfect, and commit the rest to Nature's work; but very often the poor Woman dies, because of the great mischiefs which

happen usually before the supuration of the Burthen so retained: To avoid which, as soon as they meet with the like case, they must endeavour to fetch it, according as we have directed; or if they find themselves not capable to do it, because the Hand must be put up into the Womb, which is more properly the work of a Chirurgeon expert in those cases, let them presently send for one, that so he may be yet able, before the Womb closeth, to introduce his hand; for the longer it is deferred, the more difficult will be the work.

There are other Midwives bold enough to undertake this Operation, but for want of industry or necessary knowledg they cannot effect it, and leave

leave the Woman oftentimes in a worse condition than if they had never medled with it; as happened about a year or little more since to a poor Woman in the *Fauxbourg St. Marcel*, whom I helped three days after she was delivered; being half gone, by a Midwife of the same *Fauxbourg*, at the desire of Mr. *Bessier* a Chirurgion and my good Friend, who conducted and accompanied me to her, where I found her in continual pain all over her Belly, which held her like throws of another Travail, voiding black humours extremely stinking and offensive, with which she had also a great pain in her Head, and a Fever, which in a short time would without doubt have augmented, if I had not presently fetched what remained: wherefore having enquired of the persons present in her Chamber, how she was delivered, and when; they told me not yet three whole days, but that the Midwife not being able to fetch all, did only bring away some small pieces of the Burthen, & told them, * that

** An excuse of some of our Midwives.*

they need not be troubled at what remained, perswading them alwaies that it would come away of it self, and that nothing more was to be done but patience. Truly she was not so much to be blamed, for not having delivered this Woman, as she was in not acquainting her that she needed more help, when she found that it was beyond her skill.

After this information, having put up two of my Fingers into the *Vagina*, to understand the present estate of things, I found the inward orifice of her Womb almost quite closed, into which however I got my Fore-finger, where by moving it to
and

and again without taking it away, by little and little I dilated her Orifice, so as to introduce another Finger, with which two alone, being not able to get in the rest, I brought away three pieces of the Afterbirth, of the bigness of a Walnut, which were left behind, taking them one after the other with my two fingers, as Crabs do when they gripe any thing with one of their forked Claws; by which means in a small time I delivered this Woman quite, who immediately after felt no more pain, and recovered soon after: but otherwise she had certainly been in danger of her life, because of the great corruption of what was left behind in the Womb: for that which I fetcht away, smelt so ill, that my Hands stank of it above two days after, although I washed them three or four times with Vinegar.

This Chapter may suffice to show how one should behave himself in this Case. We will now teach what is fit to be done in each of the other Labours against Nature.

CHAP. XIV.

To deliver a Woman, when the Child comes footling.

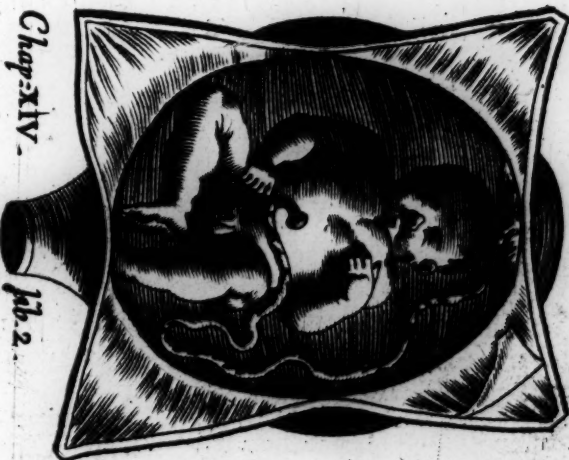
IT is an undoubted truth, and well known to all such as lay Women, that the several unnatural Postures, wherein Children present themselves at their Birth, are the cause of most of the bad Labours

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hours and ill accidents there met with, for which usually recourse is had to Chirurgeons.

Now since he is obliged very often, because of these ill scituations, to draw the Children forth by the Feet; I am therefore resolved, before I speak of the rest, (to most of which that must be a guide) to show how a Child must be brought forth, which comes either with one or both Feet first.

Most Authors advise in this case, to change the Figure, and place the Head so, as it may present first to the Birth; but if they would show, how it should be done, we might follow their counsel, which is very difficult, if not altogether impossible to be performed, if we desire to avoid the dangers that by such violent endeavors the Mother and Child must necessarily be put in; wherefore 'tis better to draw it forth by the Feet, when it comes Footling, than to venture a worse accident by turning it.

* As soon then as 'tis known the Child comes thus, and the Womb is open enough to admit the Chirurgeons hand

* *That is, as soon as the Waters are broke.*

into it, or else by anointing the Passages with Oyl or Hogs grease, to endeavour to dilate it by little and little, using to this purpose his fingers, spreading them one from the other after they are together entered, and continuing so to do, till it be sufficiently dilated; then, having his Nails well pared, and no Rings on his fingers, his Hands well anointed with Oyl or fresh Butter, as also the Woman placed after the manner as we have already often directed, let him gently introduce his hand into the entry of the Womb, where finding the Childs

Feet,

Feet, let him draw it forth in that posture we shall now direct : but if it presents but one Foot, he should consider, whether the right or left, and in what fashion it comes ; for these reflexions will easily inform him, on what side the other may be ; which as soon as he knows, let him seek it, and gently draw it forth together with the first, but let him also be very careful that this second be not the Foot of another Child ; for if so, he may sooner split both Mother and Children then draw them forth ; which may easily be prevented, if having slid his hand up the first Leg and Thigh to the Twist, he finds both Thighs joined together, and depending from one and the same Body ; which is likewise the best means to find the other Foot, when it comes but with one.

All Authors, for fear of losing hold of the first Foot, advise to fasten a Ribban to it with a running knot, that so it may not be sought a second time, when the other is found : but that is not absolutely necessary, because usually when
** Not always.* one hath hold of one, * the other is not far off : they that will may use this precaution ; but such as are expert, use it but seldom.

As soon then as the Chirurgeon hath found both the Childs feet, he may draw them forth ; holding them together, he may bring them by little and little in this manner, taking afterwards hold of the Legs and Thighs as soon as he can come at them, and drawing them so till the Hips be come forth : the whilst let him observe to wrap the parts in a single Napkin, to the end that his Hands, being already greasy, slide not on the Infants body, which

which is very slippery, because of the viscous humours, which are all over it, and hinder that one cannot take good hold of it, which being done, he may take hold under the Hips to draw it so forth, to the beginning of the Breast, and then let him on both sides with his hand bring down the Arms along the Childs body, which he may then easily find, and be careful that the Belly and Face be downwards, lest being upwards, the Head be stoppt by the Chin over the Share-bone; wherefore if it be not so, he must turn it to that Posture; which is easily done, if taking hold on the body, when the Breast and Arms are forth in the manner we have said. he draws it, with turning it in proportion, on that side which it most inclines to, till it be as it should be, that is, with the Face downwards, and having brought it to the Shoulders, let him lose no time, (desiring the Woman at the same time to bear down) that so in drawing, the Head at that instant may take its place, and not be stoppt in the passage. Some Authors, to prevent this inconvenience, advise that one Arm only should be drawn forth, and the other left to prevent the closing of the Womb on the Neck of the Child: this reason is plausible, yet if the Chirurgeon knows how to catch his opportunity, he will not need this shift to prevent this accident, which may sooner happen when one Arm is left above; for besides that by its bigness it would take up so much place, which is already too little, causing the Head to lean more on one side than the other, it will stop it certainly on that side where there is no Arm; and when I have sometimes tryed to deliver a Woman, leaving one of the Arms above with the Head, I could not
till

till I fetched both Arms, and then I finished my operation with more ease.

There are indeed some Children that have their Head so big, that when the whole Body is born, yet that stops in the Passage, notwithstanding all the care to prevent it: in this case he must not endeavour only to draw forth the Child by the Shoulders, lest he sometimes separates the Body from the Head, but he must disengage it, by little and little, from the bones in the Passage with the fingers of each Hand, sliding them on each side opposite the one to the other, sometimes above and sometimes under, until the work be ended, endeavouring to dispatch it as soon as possible, lest the Child be suffocated; as it will certainly be, if he should remain long in that Posture, which being well and duly effected, he may soon after fetch the After-birth as above directed.

CHAP. XV.

How to fetch the Head when separated from the Body, & it remains behind in the Womb.

NOTWITHSTANDING all the care possible had in the fetching a Child by the Feet, yet sometimes one meets them so putrified and corrupted, that with the least pull the Body separates from the Head, which remains alone in the Womb, and cannot be extracted but with much difficulty, forasmuch as it is extremely slippery, by reason of the place where it is, and of a round Figure, on which no hold can be taken. The difficulty usually met with upon the like occasion hath been so great, that sometimes two or three Chirurgeons one after the other

other have forsaken the Operation, not being able to accomplish it, after all their industry in vain employed, together with their strength, so that necessarily the death of the Woman ensued: but I am of opinion they had escaped this misfortune, if they had done what I shall now direct.

When then the Infants Head, separated from its Body, remains alone behind, whether because of putrifaction or otherwise, let the Chirurgion immediately without delay, whilst the Womb is yet open, direct up his right Hand to find the Mouth of this Head (for there is then no other hold) and having found it, let him put one or two of his Fingers into it, and his Thumb under the Chin, and then by little and little let him draw it, holding it so by the Jaw; but if that fails, as it often will when putrified, then let him pull forth his right Hand and slide up his left, with which he must support the Head, and with the right let him take a narrow Crochet, but strong and with a single branch, which he must guide along the inside of his other Hand, keeping the point of it towards it, for fear of hurting the Womb, and having thus introduced it, let him turn it towards the Head, so to strike it into either an Eye-hole or the hole of an Ear, or behind the Head, or els between the Sutures, as he finds it most easie and convenient, and then draw forth the Head so fastened with the Crochet, still helping to conduct it with his left Hand, but when he hath brought it near the Passage, being strongly fastened to the Crochet, (as is already directed in one of the mentioned places) let him remember to draw forth his Hand, that the Passage being not filled with it may be the larger and

and easier, keeping still a Finger or two on the side of the Head, the better to disengage it.

You may try for the same purpose an * expedient

** Doubtful expedient.* (which appears to me very ingenious) and (thinking on this subject) came lately into my mind, by which, without doubt, one may effect this painful and laborious Operation, without tormenting the Woman so much as she is, when either the Crochet or crooked Knife are used; which is a soft Fillet, or linnen slip, of the breadth of four Fingers, and the length of three quarters of an Ell or thereabouts, and taking the two ends with the left Hand, and the middle with the right, let him so put it up with his right, as that it may be beyond the Head to embrace it, as a sling doth a stone, and afterwards drawing the fillet by the two ends together, it will easily be drawn forth, the fillet not hindering in the least the passage, because it takes up little or no place.

But if the Chirurgeon cannot by either of these different means draw forth the Head, because 'tis too big, he will be necessitated (if he will finish his work) to lessen it with a crooked knife, marked D. in the representations of the instruments, at the end of the *Second Book*. For to do this, let him slide up his left hand into the Womb, and with his right guide up the Knife, always observing that the point be turned towards the inside of the left hand, for fear of hurting the Womb, and afterwards let him turn * it to the *Sutures* of the Head, and chiefly

** A dangerous Operation, not rashly to be undertaken.*

the Crown; where he must make the incision with this Instrument, that having separated some pieces, he may the easier draw forth the Head, or at least having empyed some part of the Brain, by the Orifice so made, the bigness of the Head will be much diminished by it, and consequently the extraction of it less painful.

The left hand being thus in the Womb, will be very usefull to help strike the knife into the Head, for to divide and separate its parts, as the Chirurgion judges necessary, as also to hinder that by inadvertancy the Womb receive no hurt; and the right without, for to hold the handle of this instrument, which therefore must be long enough, and will serve him to move and guide it on which side he pleaseth; in turning, thrusting, drawing, or slanting it as the case requires.

Ambrose Pare and *Guillemeau* would have this Knife to be so short, as to be hid in the right Hand, for to do the Operation, after it is so introduced into the Womb; but it is certain, that when it is filled with a monstrous Child, or a Head, as abovesaid, the Chirurgeons hand will be so pressed in the Womb, that it will be very difficult for him to use it skilfully with one Hand alone, and do no violence to the Womb; which is the reason why (if I may be credited) this instrument ought to have a long Handle, that being introduced the Womb, it may be conducted to do the Operation with the left Hand within, as we have mentioned, and governed by the right which holds the Handle of it without, which ought to be as long as the handle of an ordinary Crochet. They that will take the pains to conceive my Arguments, and try this Instrument when they have occasion,

will confess it to be much more useful and commodious, being thus long, than so short as the said *Pare* and *Gillman* recommend. For my part, having carried one to be made of that fashion, I found it very convenient when I had the like occasion to use it.

Now when the Head is thus fetcht out of the Womb, care must be taken, that not the least part of it be left behind, as also to cleanse the Woman well of her After-birth, if yet remaining. But a question of great consequence and much to the purpose may be here started, Whether the Childs Head yet remaining so in the Womb, and the Burthen also, the Head ought to be extracted before the Burthen, to which may be answered with distinction, that if the Burthen be wholly separated from the sides of the Womb, it ought to be first brought away; because it may hinder the taking hold of the Head, but if it be still adhering, it must not be meddled with, till the Head be brought away; for if one should then go about to separate it from the Womb, it would cause a flooding, which would be augmented by the violence of the Operation, for the Vessels to which it is joined, remain for the most part open, as long as the Womb is distended, which the Head causeth whilst it is retained in it, and cannot close till this strange body be voided, and then it doth by contracting and compressing it self together, as I have heretofore more exactly explained: besides, the After-birth remaining thus cleaving to the Womb, during the Operation, prevents it from receiving easily either bruise or hurt. This instruction may suffice for this Chapter, let us pass to the rest.

CHAP. XVI

How to help a Woman in her Labour, when the Childs Head thrusts the Neck of the Womb forth before it.

If we only respect the figure the Child comes in in this Labour, we may say it is natural; but when we consider the disposition of the Womb, which is in danger of coming quite forth of the Passage, or the extraction of the Infant, we shall find it not altogether, for its Head thrusting it forcibly before in, may easily cause a falling out of the Womb, if the Woman be not skilfully succoured in time: where may be seen the Vagina or Neck of the Womb bear forth before in great wrinkles, according as the Child advanceth.

Women troubled with a bearing down of the Womb before they conceive, and whose Womb is very moist, are much subject to this accident, because of the relaxation of the Ligaments. The same Method we have taught in the natural Travail must not now be observed; for in this case the Woman must neither walk, nor stand upright; but keep her Bed, with her body equally at least situated, and not raised a little, as is requisite in a natural Labour: She must by no means use strong or sharp Clysters, lest they excite too great Throws, neither so much humect the Womb, which is already too much relaxed: but to aid her at this moment each Pain takes her, when the Child begins to advance his Head, and consequently the

Neck of the Womb, let the Midwife keep her hands on each side of the Head, to thrust back, by resisting the Womans pains, the Womb only, giving way in the mean time for the Child to advance, doing the like at every Throw, continuing it till the Woman of her self hath forced the Child quite into the world: for one must by no means draw it by the Head, as is mentioned in the natural Labour, for fear of causing the Womb to fall out at the same time, to which it is then very apt.

If notwithstanding the Infant having the Head born, and yet stops there so long as to indanger its suffocation, then the Midwife must call a second person to her assistance, to draw it gently forth by the Head, whilst she keeps back the Womb with both her Hands, to prevent its following the Infants body so drawn forth. After the Woman is thus delivered, her Afterbirth must be fetched as is above directed, being still careful for the same reason not to shake or draw it forth too rudely, and then let it be placed up in its natural situation, if it bears down.

CHAP. XVII.

How to fetch a Child, when coming right it cannot pass, either because it is too big, or the Passages cannot be sufficiently dilated.

THere are some Women, whose Children (notwithstanding they come right) remain sometimes four, five, and six whole days in the Passage, and would continue there longer, if they were left alone, without being able to be born, unless assisted by Art; to which we are obliged, if we desire to save the Mothers life: this happens ofteneft to little Women of their first Children, and chiefly if a little too much in years; because their Womb being very dry, cannot be so easily dilated, as others, who already have had Children, or are not so old. When this happens, after that the Chirurgion hath done his endeavour to relax and dilate the parts, for to facilitate the Childs birth, and that he finds all in vain, because the Head is much bigger than it should be, and that besides, it is certainly dead (as it for the most part is, when it hath continued four or five days in this condition, after the Waters are broke) which he may be more exactly assured of by the signs already described in the 12th Chap. of this Book, * he need then

** This may be connived at when the Child is dead, but because the most careful may oftentimes be mistaken, it cannot be approved of, as appears in the Translators Epistle to the Reader.*

make no scruple to fasten a Crochet to some part of the Childs head, and rather about the hinder part than any other, for to draw it forth by this means directly, if possible; if not, let him make an incision with a straight or little crooked Knife, which is best, about the *Sutures*, for to empty thence some of the Brains, and so lessen the bigness of this Head, and immediatly after fix his Crochet fast to the Skull in the same place, whereby he will easily extract the Infant.

It is very certain when the Child is dead, one ought to do according to my direction, to save the Mothers life: but it is

* *This question is out of doors, for the reason given in the foresaid Epistle.*

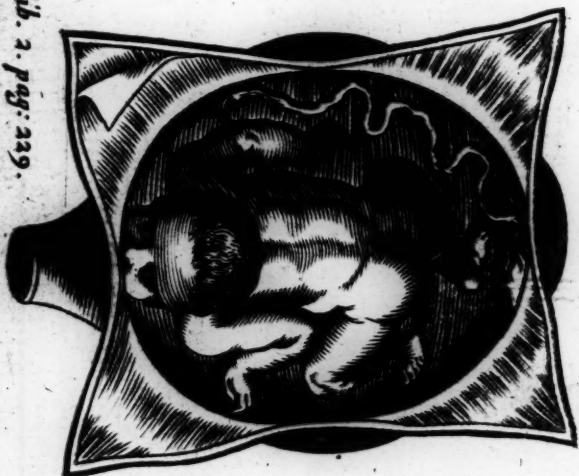
a very great * question, Whether a live Child ought to be so dealt with to save the Mothers life, after there is no more

hopes that it can be born any otherways, because of the narrowness of the Passage, which cannot possibly be sufficiently dilated for its Birth; or whether one ought to defer the Operation, untill there is a perfect assurance that 'tis dead? In this case I am apt to believe, that, since the Infant cannot avoid death neither one way nor the other, (for staying in the Passage, without being able to be born, it must dye, and being drawn forth by Crochers, it is killed) one must and ought fetch it out alive or dead, as soon as there is opportunity to do it, and when all hope is lost that it can come any otherways, thereby to prevent the Mothers death, which could by no other means be avoided. *Tertulian* (as *Riolanus* very well notes in his 28th Chap. of the 12th Book of his *Anatomical Manual*)





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Manual (saith upon this subject, "That is a necessary cruelty, to kill the Child in this case, rather than to save it from the danger it is in of dying, and so certainly cause the Mothers death. Notwithstanding this must not, alwaies be put in practice by the Chirurgion, but in such an extremity, and then he may do the work as dextrously as he can. For my part, I had rather do this in the like occasion, than resolve upon that cruelty and barbarousness of the *Cæsarean* Section, in which 'tis absolutely impossible (though many Impostures, whom *Roussel* favours, assure the contrary) that a Woman should ever escape, as I shall make more particularly appear hereafter, when I come to it; for by this Operation I can save the Mother, who would perish with the Child: And as it is always better of two evils to choose the least, so we ought always to prefer the Mothers life before the * Childs.

* *This Chapter might be very well spared, if every Practitioner had the art the Translator professeth in his Epistle, of fetching a Child when it comes right, without hooks or turning it.*

CHAP. XVIII.

How to deliver a Woman when the Child presents the side of the Head to the Birth, or the Face.

When the Child presents the side of the Head, though it seems a natural Labour, because

the Head comes first, yet 'tis very dangerous both to Child and Mother, for he shall sooner break his Neck, than ever be born in that fashion; and by how much the Mothers pains continue to bear him, which is impossible unless the Head be first right placed, the more the Passages are stop't up.

** A good Note, for though some possibly, not unlike this Birth may in time be born, yet 'tis for the most part dangerous delaying it, because many Children and some Women have been so lost.*

* Therefore as soon as it is known, the Woman must be laid with all speed, lest the Child advancing further in this vicious Posture, it prove more difficult to thrust him back, which must be done when we would

place the Head right in the Passage, as it truly and naturally should be.

For to effect this, place the Woman that her Hips be a little higher than her Head and Shoulders, causing her to lean a little upon the opposite side to the Childs ill posture, then let the Chirurgion slide up his Hand, well anointed with Oyl, by the side of the Childs head, for to bring it right, gently with his Fingers between the Head and the Womb; but if the Head be so engaged that it cannot be easily done that way, he must then put his Hand up to its Shoulders, that so by thrusting them back a little in the Womb, sometimes on the one side, and sometimes the other, as he sees occasion, he may give it a natural and convenient Position.

It were to be wished that the Chirurgion could ~~put~~ back the Infant by the Shoulders with both his Hands

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Hands in this manner; but the Head doth then take up so much room, that he hath much ado to introduce but one, with which he must do his Operation, with the help of the Fingers ends of the other Hand put up as far as necessary, afterwards let him excite and procure the Childs birth, as directed in the natural Labour.

At other times a Child comes with the Face first, having its Head turned back, in which Posture it is very difficult it should be born, and if it remain so long, the Face will be so black and blew, and swelled, that at first sight it will appear monstrous; which comes as well by the compression of it in that place, as by the Midwives fingers handling it too rudely, when she would place it in a better Posture.

I remember about six years ago, in the like Case, a Woman whose Child came with the Face so black and mishapen as soon as it was born (as usually in such cases) that it lookt like a Blackmoor, however I delivered her of it alive: as soon as the Mother saw it, she told me, that she always fear'd her Child would be so monstrous; because when she was young with Child of it, she fixed her looks very much upon a Blackmoor belonging to the Duke de Guise, who atwaies kept several of them; wherefore she wished, or at least cared not though it dyed, rather than to behold a Child so disfigured, as it then appeared: But she soon changed her mind, when I satisfied her that this blackness was only because it came Faceling, and that assuredly in three or four days it would wear away; as it happened, having often anointed it with Oyl of sweet Almonds by expression; and
when

when I deliver the Child about a year after, I thought I had not seen a fairer one. Now to deliver this Birth, the same manner, as when a Child comes with the side of the Head, must be observed, being careful to work gently, to avoid as much as may be the bruising of the Face.

CHAP. XIX.

How to deliver a Woman when the Head of the Child is born, and the Womb closeth about the Neck.

THe Child comes naturally with the Head first; because that by the hardness and bigness of it, the Passage might be the better made and opened for the other parts of the Body, which usually pass afterwards without pain; but notwithstanding sometimes the Head is so small, and the Shoulders so large, that without a very great difficulty, they cannot pass; which makes the Child remain often in the Passage after the Head is born. This accident may likewise happen sometimes, for not having been careful to lose no time to draw forth the Child by the Head, as directed in the Discourse of natural Labours, to the end the Shoulders might at the same instant succeed in the place the Head possesseth.

When the Chirurgion meets with this case, he must speedily deliver the Child out of this prison, or rather this Collar in which he is caught; for a small delay may there strangle the Child: to avoid which, let him endeavour to cause the Shoulders to follow by gently drawing its Head; sometimes by the sides of it, sometimes with one hand





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hand under the Chin, the other behind the Head, and so doing by turns on the one side and the other, to facilitate the Operation the better, being very careful the Navel, string be not entangled about the Neck; as also not to draw it forth with too much violence, for fear lest it may happen, as I once saw the Head pulled from the Shoulders. If the Shoulders pass not with gentle pulling, slide up your Fingers, on both sides under the Arm-pits, with which turning them inwards, you may by little and little draw forth the Shoulders; but when they are in the Passage and totally disengaged, if he cannot then draw the rest forth, still keeping his Fingers under the Arm-pits, he may be confident there is some other hinderance, and that it is certainly monstrous in some part of its Body; or, as it for the most part happens in this Case, that it is Hydropical in the Belly, for which cause it is impossible it should be born, before the Belly be pierced to evacuate the Waters, and then 'twill easily be accomplished, as I have done in the like case, of which I will give you the particulars, and how we behaved our selves; for we were two Chirurgeons, one Midwife, and a Deputy belonging to the *l'Hôtel de Dieu* to do the work.

In the year 1660, whilst I practised Midwifery in that Hospital, it happened that the Deputy had a Woman whose Child she could not possibly bring into the world further than its Head, where it so remained, and seeing she could not after all her endeavours finish the work, she called the Midwife of the place to her aid, which was then *Madam de France*, who likewise used her utmost skill, but in vain, and when they were both thus tired in pulling

pulling the Head (so as the *Vertebra's* of the Neck were separated; and that it hung only by a little of the Skin) I came in the *interim*, when they desired me to examine the business, and to find the cause why the Child could not be drawn forth with all their strengths, which was sufficient to have drawn forth the Shoulders, if they had been as big again as they were; which having considered, I immediately conceived the difficulty to proceed from something else: wherefore I put my hand into the Womb up to the Childs shoulders, which seemed not too big to pass with ease, therefore I concluded that the hinderance was not there. After that I put my hand further up, directing it all along his Breast, at the bottom of which, near the gristle *Xiphoides*, I found his Belly hydropical and full of Water, so that it was impossible ever to deliver the Woman, until the Water was emptied by piercing the Belly: but there wanting a fit instrument for the purpose, I immediately sent to advertise one of the Chirurgeons of the same Hospital, to whom I declared the case as I found it, adding withal that the Child could not be born, unless an orifice was made to empty the Belly: but he would by no means follow my opinion, whether it was out of policy, believing, it may be, that he very well understood his business without needing my advice, or that he would not or could not believe the Child to be hydropical, as I informed him; wherefore he contented himself, without an exact examination of the case, to endeavour only the extraction of it after his manner; and, to effect it, he immediately pulled and separated the Head wholly from the Body, which hung
then

then but by a skin; because the Midwives, as I said before, had pulled it with so much violence. Afterwards with his Crochets he pull'd away both the Arms, and some of the Ribs, part of the Lungs and the Heart, one piece after another for above three quarters of an hour, that he was very wet with Sweat, although it were cold weather; and having thus tired both his mind and body, he was constrained to quit the work, to rest a while, leaving the Midwife to endeavour what she could the whilst, who wearied her self also in vain, as well as he had done, by pulling some of the Childs Ribs with her hands only

(* for it is not a Midwives work to use Crochets.)

After this he returns the second time with all his strength to the work, without effecting any more, because he had not yet opened the lower belly, nor the *Diaphragma*, nor would not, as I ad-

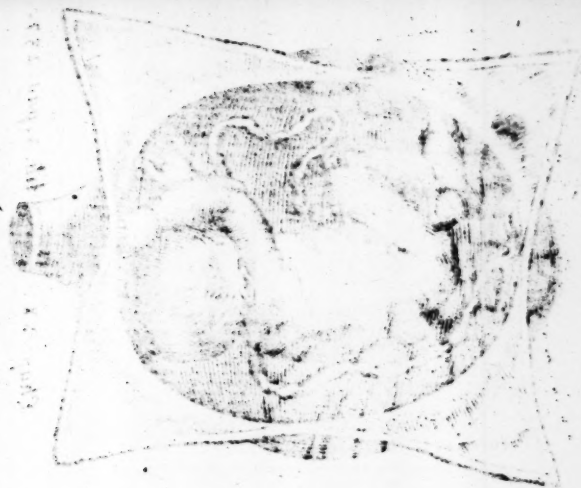
** Though some here in England blindly adventure on the use of them, to the loss of many lives, which cannot be approved, for the reason given in the Translators Epistle to the Reader.*

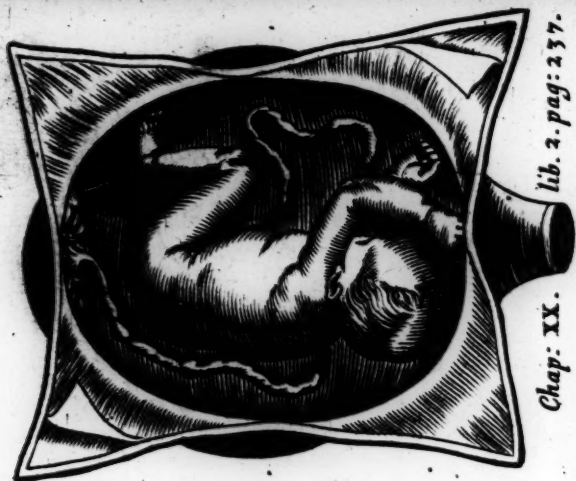
vised him every moment, without which it was absolutely impossible to draw forth the rest of the Body.

When he saw that his second endeavors were as ineffectual as his first, he gave me at length his Crochet, telling me that I might weary my self as well as the others, which I willingly and with joy accepted (for I was very certain I could finish the operation) knowing very well, that instead of amusing my self as they had done, about pulling of it, I ought only to pierce the Infants belly to

let

let out the Waters, after which all the rest would very easily follow. For which purpose I put up my left Hand into the Womb, just to the right side of the Swelled Belly, and then with my right Hand I guided the Crocher (like to that marked A, amongst the representation of the Instruments at the end of this Second Book, instead of which it were better to use the crooked Knife, marked there D) along my left hand into the Womb, and then I turned the point of it towards the Infants Belly, in which I struck it, so that I made a hole big enough to receive two of my Fingers ends, (which I put into it after it was in the world) and then thrusting in a needle, all the Waters were immediately emptied, so that with one Hand I easily drew forth the rest of the Body, to the astonishment of this Chirurgeon, whom I could never persuade that the Infant was so full of the Dropsy. After it was thus drawn forth, I had the curiosity to fill up the Belly with Water, by the hole I had made, so that we might see what quantity of Water had been there contained, and of what bigness it might be when filled: I poured in, without lying, above five Quarts, which I should hardly have believed, if I had not seen it my self, and when the Belly was filled with Water, it was of the bigness and figure of a very great Foot-ball. I have set down here all the circumstances of this History, that the Chirurgeon may know how to behave himself on the like occasion.





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CHA P. XXX

*How to help a Woman when the Child comes
with one or both Hands together with the
Head.*

For the most part when an Infant presents any
part of his Body together with the Head, it
is usually one or both the Hands rather than any
other, which hinders its Birth; because the Hands
take up part of the Passage, and for the most part
they cause the Head to lean on one side. When
the Child comes thus, it is quite contrary to Na-
ture. To remedy this, as soon as it is perceived that
one Hand presents together with the Head, it must
be prevented from coming down much on engaging
further in the Passage; wherefore the Chirurgeon
having placed the Woman on the Bed with her
Head a little lower than her Hips, must put and
guide back the Infants Hand with his own as much
as may be; or both of them, if they both come
down, for to give way to the Childs Head; which
having done, if the Childs Head be on one side,
it must be brought into its natural Posture in the
middle of the Passage, that it may come in a straight
line, proceeding further as I have directed before
in the 18th Chap. of this Book, which treats of
the Childs Head coming on one side.

CHAP. XXI.

How to deliver a Woman when the Child presents one or both Hands foremost, without any other part.

WHEN an Infant presents only one or both Hands to the birth, or an Arm sometimes out to the Elbow, and many times to the Shoulder, it is one of the worst and most dangerous Postures a Child can come in, as well for himself as for his Mother; because of the violent force **Not always,* the Chirurgion is ** always* obliged though often to use both to the one and the other times. in searching for the Feet, which are very far off, by which he must always in these Cases, turn and draw him forth; which will often make him sweat in the midst of Winter, because of the difficulty in this Labour more than in all the rest, though some others of them indeed are more dangerous for the Infant; as when it presents the Belly, and the Navel-string comes forth: but not so painful for the Chirurgion, because the Feet of the Infant being near the Passage, are not so hard to be found, as when he comes with a Hand; for then they are high, at the very bottom sometimes of the Womb, where he must seek them, for to turn it and draw it forth, as I am going to direct.

When therefore it presents with one Hand only,

or a whole Arm first; it must by no means be pulled forth by that part; for it will sooner be separated and rent from the Body, than so brought forth, by reason a Child is pluckt obliquely and cross. And when both Arms present, if pluckt together, there would not be place for the Head to pass, which would by that means be turned quite back. Wherefore having placed the Woman as is requisite, * one must put back the Infants Hand or Arm, which comes forth, into the Womb again. Some Midwives dip it in cold water, or touch it with a wet Cloth, sayings, that the Infant will presently draw it in, if he be living; but he is usually so prest and ingaged in the Passage by this bad Posture, that He hath not liberty enough to draw back his Hands so easily, being once come forth; wherefore the Chirurgion must guide them * back with his own, which he must afterwards slide into the Womb under the Childs Breast and Belly. So far will he find the Feet,

* Not the best way, and cutting it off is worst.

* Better left alone.



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CHAP. XXI.

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When therefore it presents with one Hand only,



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As soon as he shall have so turned the Child by the Feet, if he hath hold but of one; he must search for the other, that so he may bring it to the first; when holding them both, he must govern himself afterwards in the bringing the Child, as

** Not the best way, and cutting it off is worse.*

** Better let alone.*

we have formerly shewed in the *Fourteenth* Chapter of the *Second* Book, speaking of those Labours where the Feet come first: but if the Arm be so far advanced (almost to the

* *Which seldom is, unless an ignorant Midwife tamper with it.* Shoulder)* and so big and swelled († as it happens when it hath been a long time forth) that it cannot at all, or without great difficulty be reduced. *Am- brose Paré* in this case || directs (provided the Child be certainly dead) to cut off that Arm as high as may be, first making an incision round the flesh, and then cutting off the bone a little higher, with a pair of sharp Pinchers, that so the flesh may be left longer to cover the sharpness and end of

† *The fault of the Midwife for not sending as soon as she discovers it to come so.* the bone, to prevent hurting the Womb, when the Infant is turned, to draw it afterwards forth by the Feet as it should be: Notwithstanding if the Chirurgeon, not being able to put it back, is absolutely constrained to cut it off (which must not be done but in such extremity) he may effect it without so much ceremony, by

|| *Good if the Child be dead, but since it may alwaies be done without, not good to delay the operation endangering the Woman till the Child be dead.* * *twisting it twice or thrice about; for by reason of its tenderness he will easily separate*

the bone, to prevent hurting the Womb, when the Infant is turned, to draw it afterwards forth by the Feet as it should be: Notwithstanding if the Chirurgeon, not being able to put it back, is absolutely constrained to cut it off (which must not be done but in such extremity) he may effect it

* *This much the better way.* without so much ceremony, by twisting it twice or thrice about; for by reason of its tenderness he will easily separate





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rate it from the Body, just in the joint of the Shoulder with the Shoulder-blade, by which means he will need neither sharp Pincers nor other instruments to cut the Bones and Flesh, as the said *Paré* teacheth, neither will there remain any sharpness, by reason the separation will be just in the joint.

But above all when the dismemb'ring of an Infant is thus intended, or to draw it forth with a Cro-
**This caveat unnecessary*
 chet, **let the Chirurgion to those who understand*
 take great care that he *the Art aright.*
 be not deceived, well considering, whether it be assuredly dead, and not to operate on this wise, unless he be very certain of it; by all the signs mentioned in the 12th Chap. of this Book; for what a horrible spectacle would it be, to bring (as some have sometimes done) a poor Child yet living, after the Arm hath been cut off, or any other part of the Body; wherefore let him make a double reflection on his work, before he goeth about it.

CHAP. XXII.

How to deliver a Woman when Hands and Feet come together.

IF the Infant presents both Hands and Feet together at the Birth, it is altogether impossible it should be born so: the Chirurgion therefore guiding his Hand towards the orifice of the Womb will perceive nothing but a many Fingers close together.

gether, and if it be not sufficiently dilated, he will be a good while before he can exactly distinguish between the Hands and Feet, by reason they are sometimes so shut and prest together, that they seem to be all of one and the same shape: but when the Womb is open enough for to introduce the Hand into it, he will easily know which are the Hands, and which the Feet; and having well taken notice of it, let him slide his Hand, and presently direct it towards the Infants Breast, which he will find very near, and by

* *Unnecessary.* that * let him gently thrust back the Body towards the bottom of the Womb, leaving the Feet in the same place where he found them; having therefore placed the Woman in a convenient Posture, that is, her Hips a little raised above her Breast and Head, which situation ought alwaies to be observed when the Child is to be put back into the Womb, let him afterwards take hold of him by the Feet, and draw him forth according to the way before directed in its proper Chapter.

This Labour truly is a little troublesome, but nothing near so much as that we have mentioned in the preceding Chapter, where the Child presents only his Hands: for in that the Feet must be searched a great way off, and it must be quite turned about, before it can be drawn forth; but in this, they are ready, presenting themselves, and there is not much to do, but to lift and thrust back a little the upper part of the Body, which is almost done of it self

* *Sufficient, and the best way in this Birth.* * by drawing it alone by the Feet.

Those

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Those Authors that have written of Labours, and never practised them, as many Physicians have done, do order all by the same precept often reiterated, that is, to reduce all wrong Births to a natural Figure; which is to turn it, that it may come with the Head first: but if they themselves had ever had the least experience, they would know that it is very often impossible; at least if it were to be done, by the excess of violence, that must necessarily be used to effect it, it would go near to destroy both Mother and Child in the operation: a *Fiat* in this Case is soon said and ordered; but it is not so easily executed as pronounced. For my part I am of an opinion cleer contrary to theirs, and such as are skilfull in the Art will surely agree with me in it, that is, that (whensoever the Infant comes wrong in what Posture soever from the Shoulders to the Feet) it * is the best way, * *A good note.* and soonest done, to draw it forth by the Feet; searching for them, if they do not present themselves, rather than to try to put it into a natural Posture, and place the Head foremost: for the great endeavours often necessary to be used in turning the Infant in the Womb (which is a little harder than to turn a Pancake in a frying Pan) doth so weaken both Mother and Child, that there remains not afterwards strength enough for to commit the Operation to the work of Nature, and usually the Woman hath no more Throwes nor Pains fit for Labour, after she hath been so wrought upon; for which cause it would be very tedious and difficult, as also the Infant, which is already very weak, would certainly perish in the Passage, with-

out being able to be born. Wherefore it is much better in these cases immediatly to fetch it by the Feet, searching for them as I have already directed, when they do not present themselves, by which a tedious Labour will be prevented to the Mother, and the Child will be often brought alive, who without it will scarce escape death before he can be brought forth by the strength of Nature.

CHAP. XXIII.

How to deliver a Woman, when the Child comes with the Knees.

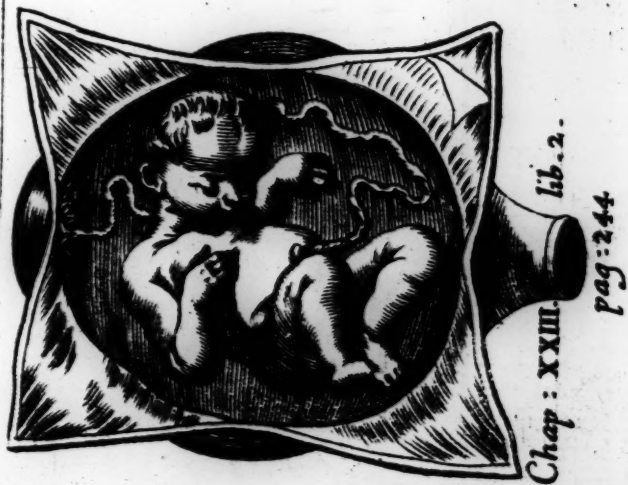
WHen an Infant (not being turned towards the latter moneths, as he ought, to come with his Head foremost, as is mentioned in the 5th Chap. of this Book) presents the Knees to the Birth, having the Legs folded towards the Buttocks, one may easily be deceived touching but one of them, because of their hardness and roundness, and take it for the Head, especially when being situated a little high, it can be reached but with the end of a Finger only; but if it be touched and handled a little better, the Infant being fallen a little lower, it will easily be distinguished.

As soon then as it is perceived, it must not be suffered to advance further in this Posture; but having placed the Woman, the Knees must gently be put back, for to have the more liberty to unfold the Legs one after the other, which the Chirurg-
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geon may do, by putting one or two of his Fingers under the Hamm, directing them by little and little all along behind the Leg, until he meets the Foot, and drawing alwaies a little obliquely, for to come the easier to the end of it, that so having disengaged one, he may do the same to the other, proceeding in the same manner as with the first; after which having brought them together, he may finish the work, as when a Child comes Footling; alwaies observing to bring the Face of it downward, and such circumstances as are noted where we treat of that Labour.

CHAP. XXIV.

Of a Delivery where the Child comes with Shoulder, Back, or Breast.

THe most difficult of these three sorts of Figures and Scituations, in which Infants sometimes come, is that of the Shoulders; because it is furthest from the Feet of the Infant, and the Chirurgion must find them, for to draw it forth. The next is the Back: and the Breech, for the same reason, causeth least trouble, not only because the Feet are nearer, but also because by this Figure, the Head and Neck of the Infant is not so constrained and lockt, as in the other scituations.

For to remedy this Birth of the Shoulder, some advise that it should be put back, to make way for the Head of the Infant, that so it may be reduced to a natural Birth: but it is much better, for the

reasons above alledged in the 22th Chap. of this Book, to try to bring it by the Feet; for to effect which, the Chirurgeon must thrust the Shoulder a little back with his Hand, that so he may have more liberty to introduce it into the Womb, and sliding it then along the Childs body, either by the Belly or side, as he finds it easiest, he shall fetch the Feet, and turning it, bring them to the Passage, and so deliver the Woman, as is already directed.

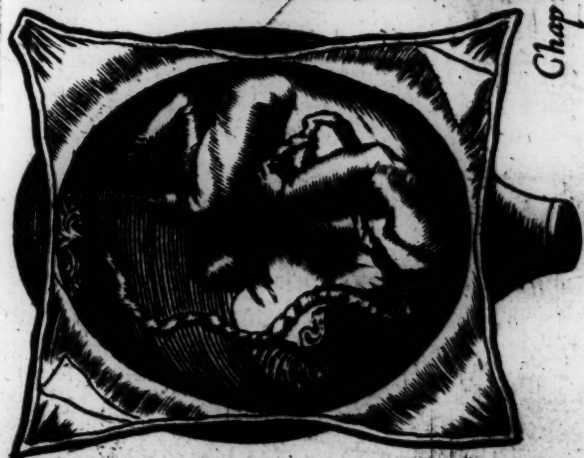
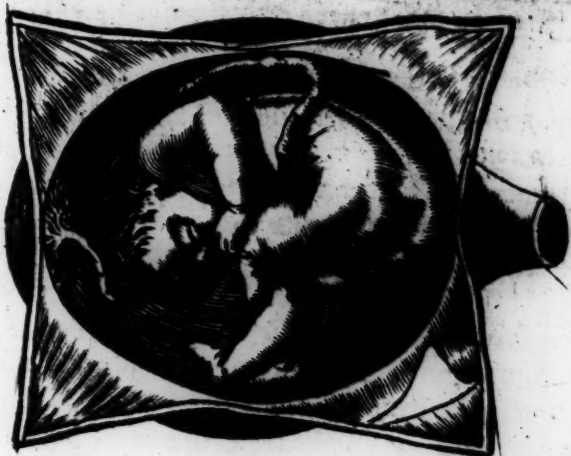
• If it be the Back, which presents to the Birth, it is also impossible to be born in that Posture, what Pains soever the Mother endures; and besides the Child having the Body folded inwards and almost double, his Breast and Belly are so prest together, that he usually wants little of being suffocated: to avoid which, the Chirurgeon must quickly slide up his Hand, along the Back towards the inferiour parts, until he meets the Feet, for to bring it forth the same way as if it came Footling.

• But when the Child comes with the Breech, if it be small, and the Mother big, having the Passages very large, he may sometimes with a little help be born so; for though he comes double, yet the Thighs being folded towards the Belly, which is soft and gives way, it passeth without much trouble. As soon as the Chirurgeon finds the Child to come with the Buttocks foremost, he must not permit it to engage lower in the Passage; for it will not come so, unless it be very small, and the Passage very large, as we have already said. This being then in good time perceived, he must, if he can, thrust back the Breech, and sliding up his Hand along the Thighs to the Legs and Feet of
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the Child, he must bring them gently one after the other forth of the Womb, by folding, stretching, wagging, and drawing them gently towards the side, being careful not to winde them too much, or cause a dislocation; and then let him draw forth the rest of the Body, as if it came with the Feet foremost.

I have said that the Chirurgeon perceiving the Child to come with the Breech foremost, ought to put it back, if he can; for sometimes he will be advanced so forward in the Passage, that you may sooner destroy both Mother and Child, than reduce it back, when once strongly engaged: When this happens, he cannot hinder it from coming in this Posture, in which his Belly is so

pressed, that he often voids the ^{*me-} **Childs ordure.*
conium by his Fundament. How-

ever he may much help this Birth, by sliding up one or two Fingers of each Hand on each side of the Buttocks, for to introduce them into the Groins, and having crooked them inward, he must draw the Breech just out to the Thighs, & then by drawing and wagging it from side to side, he will disengage them from the Passage, as also the Feet and Legs one after the other, being careful of dislocating any part, and then he may extract the rest as before, when coming with the Feet. The first Woman I ever layd, was of

a Child which I drew † thus † *This way ought to*
forth with the Buttocks fore- *be avoided if possible.*
most; being constrained to it,

because as soon as ever the Waters broke (which happened before I could arrive to hinder it) they were so forward, that it was impossible to do it otherwise,

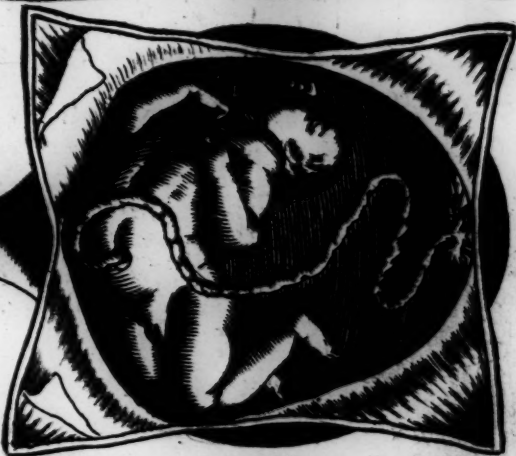
otherwise, which I performed very well and in short time, without prejudice to the Mother or Child, doing as I have directed.

CHAP. XXV.

*Of those Births, wherein the Infant presents
Belly, Breast, or Side.*

THe Back-bone may easily be bent and turned forwards a little, but by no means backwards without excessive violence. Wherefore the worst and most dangerous Figure that a Child can offer in the Womb to the Birth, is the Belly or the Breast; for then its Body is constrained to bend backwards, and whatever Throws or endeavours the Woman makes to bring it forth, it will never be accomplished, for she will sooner perish with her Child, than ever advance it in this posture into the Passage, wherefore it is in great danger, if not timely succoured. And in case it should escape, which would be very strange, it would be a long while after its birth weak in the Back. But that which augments the danger much more is, that for the most part the Navel-string comes forth when the Child comes with the Belly. Therefore as soon as it is discovered to be so, the Chirurgeon must apply the sole remedy of drawing it forth by the Feet as speedily as may be, in the following manner.

Having placed the Woman, let him gently slide up his flat Hand (being well anointed for the easier entrance)



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entrance) towards the middle of the Childs Breast, which he must thrust back, for to turn it; this scituation being already half turned, the Feet being as near to the Passage as the Head, when it presents the middle of the Belly; then he must slip up his Hand under the Belly till he finds the Feet, which he must bring to the Passage, for to draw it forth in the same manner as if it had come Footling, being careful to keep the Breast and Face downwards, which must alwaies be observed before the Head can be drawn forth, for the reasons often already given, which must never be forgotten.

When a Child comes with Breast or Belly, the Chirurgeon must always proceed after the same manner in both, inasmuch as they require the same circumstances. An Infant may likewise come with the Side, which way it is as impossible to pass as the two former: but it is not so much tormented, nor is this scituation so cruel; for it may remain in it a longer time without dying, than in the two former, wherein it is much more racked than in this, in which the Body may be bended forward, and not backward, as in the other; neither doth the Navel-string come forth so easy, as when it comes with the Belly first. In this, as in the other two Births, the Chirurgeon must draw the Child forth by the Feet on this fashion; having placed the Woman as she ought to be, he may push back a little with his hand the Infants body, the better to introduce it, which he may slide along the Thighs, till he finds the Legs and Feet, by which he must turn it, and afterwards draw it forth, just in the same manner as before, with the

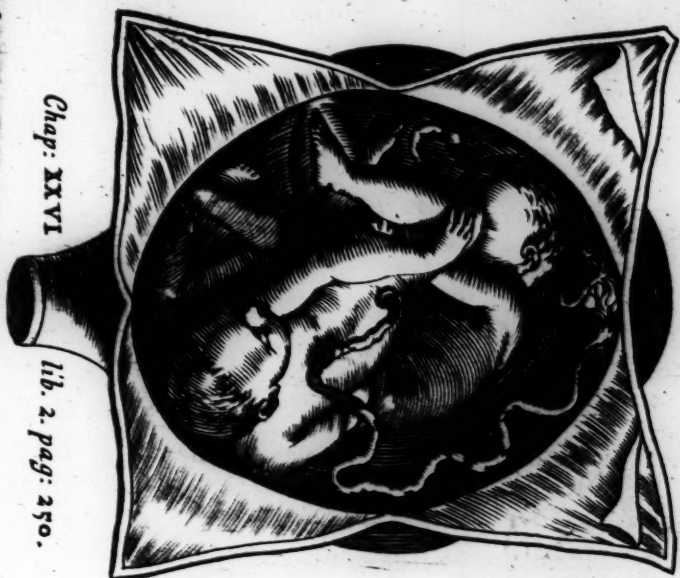
the same observations. Nor ought he to amuse himself in any of these three Births, for to place the Head right, that it might come naturally; because it is in great danger of dying in these unnatural Positions, if not drawn forth with speed; which can never be effected, unless it be by finding the Feet, as I have directed.

CHAP. XXVI.

Of Labours wherein several Children present together in the different Postures above named.

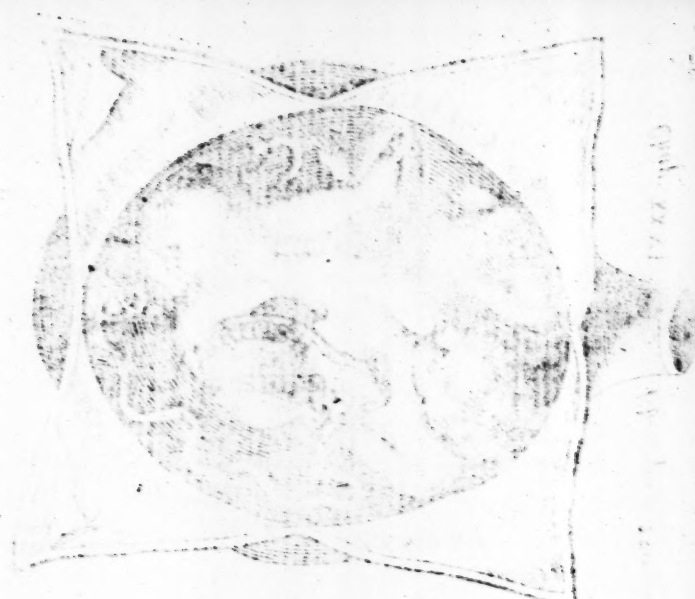
IF all the unnatural Figures and Scituations which we have hitherto described, that a single Child may come in, do cause those many difficulties and dangers mentioned; surely the Labour wherein several together come in these bad scituations must be much more painful, not only to the Mother and Children, but to the Chirurgeon also; for they are then so constrained and pressed, that for the most part they trouble each other, and hinder both their births: besides, the Womb is then so filled with them, that the Chirurgeon can scarce introduce his Hand without much violence, which he must do, if they are to be turned or thrust back, for to give them a better position than wherein they present.

When a Woman hath two Children, they do not ordinarily both present to the Birth together; but



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ut the one is often more forward than the other, which is the cause why but one is felt, and that sometimes 'tis not discovered that the Woman will have Twins, till going to fetch the Afterbirth, the first being born, the second is then perceived. When there are Twins, one must not think that Nature is orderly in causing one to be born before the other, the first or last, according as it may be most convenient, that is to say, When one is strong and the other weak, the strongest comes first; as also when one is dead and the other living, the living drives forth the dead: For it is apparent that there is no certain rule, of which behold an Example.

Sometime since I delivered two Women within a Week one of the other, both of Twins, one of each being dead, and the other living: the living Child of the first Woman was born before the dead: and the dead of the second was expelled before the living. And the same thing happens every day in respect of strong and weak Children: for that which is nearest the Birth, whether alive or dead, strong or weak, is always first born, or must be brought first, if it cannot come of it self; otherwise the difficulty of the Labour would yet be augmented as well in length of time to the Mother, as the violence done to the first Child, in putting it back, for to fetch the second first.

In the 8th Chap. we shewed, speaking of natural Labours, how a Woman should be delivered of Twins, coming both right: it now remains to direct what ought to be done, when they come either both wrong, or one of them only, as it is for the most part: the first coming right, the second

cond Footling, or any other worse Posture : and then must the Birth of the first be hastened as much as may be, that so there may be presently way for the second (which hath suffered much by this unnatural Position) to fetch it by the Feet, without trying to place it right, although it were somewhat inclined to it ; because it hath been already so tired and weakened, as also the Woman by the Birth of the first, that there would be more danger, that it would sooner dye, than come of it self.

Sometimes when the first is born naturally, the second offers the Head likewise to the Birth : in this Case, 'tis good committing a work so well begun, to Nature to finish, provided she be not too slow ; for a Child may dye although right, by lying too long in the Birth ; and the Woman, who hath been much tormented with bearing the first, is usually so tyred and discouraged, when she thinks that but half her work is over, that she hath no more Pains, or very few and slow, nor any considerable Throws to bear the Second as she had done the First. Wherefore if the birth of the Second proves tedious, and the Woman grows weaker, let the Chirurgion defer it no longer, but direct his Hand gently into the *Matrix*, to find the Feet, and so draw forth the second Child ; which will easily be effected, because there is way made sufficient by the birth of the first : and if the second Waters be not broke, as it often happens, yet intending to fetch it Footling, he need not scruple to break * the * *Skins or skirts Membranes* with his Fingers, although elsewhere we have forbidden it ; but that must be understood with distinction : for when a Labour

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Labour is left to Nature's work, they must break of themselves; but when a Child shall be extracted by Art, there is no danger in breaking them; nay contrarily they must be broke, that the Child may be the easier turned, which else would be almost impossible.

Above all, the Chirurgeon must be careful not to be deceived, when both Children together offer to the Birth either their Hands or Feet, and must well consider in the Operation, whether they be not joined together, or any other ways monstrous; as also which part belongs to one Child, and which to the other, that so they may be fetcht one after the other, and not both together, as would be if it were not duely considered, taking the right Foot of the one, and the left of the other, and so drawing them together, as if they belonged both to one Body, because there is a left and a right, by which means it would be impossible ever to deliver them: but it may easily be prevented, if having found two or three Feet of several Children presenting together in the Passage, and taking aside two of the forwardest, a right and a left, and sliding his Hand along the Legs and Thighs up to the Twist, if forwards; or to the Buttocks, if backwards, he finds they both belong to one Body; and being certain of it, he may then begin to draw forth the nearest, without regard which is strongest or weakest, bigger or less, living or dead, having first put a little aside that part of the other Child which offers, to have the more way, and so dispatch the first whatever it is, as soon as may be; observing the same Rules, as if there were but one, that is, keeping the Breast and
Face

Face downwards, with every circumstance directed where the Child comes Footling, and not fetch the Burthen, till the second Child be born; because there is commonly but one for both, which if it were loosened from the sides of the Womb, would cause a flooding, for the reasons already alledged, that the orifices of the Vessels to which it was joined would continue open by this separation, as long as the Womb was distended by the other Child, yet within it, and never close (as it often happens) till being quite empried of all, it begins to contract it self, and retire (as a man may say) within it self.

When therefore the Chirurgeon hath drawn forth one Child, he must separate it from the Burthen, having tyed and cut the Navel-string, and then fetch the other by the Feet in the same manner; and afterwards bring the Burthen with the two strings, as hath been shewed in the proper place. If the Children offer any other part than the Feet, the same course must be taken as is directed in the foregoing Chapters, where the several unnatural Figures are discoursed of, always observing for the reasons abovementioned to begin the Operation with the Child that is lowest in the Passage, and in the most commodious Figure for extraction.

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CHAP. XXVII.

Of a Labour when the Navel-string comes first.

AN Infant doth not alwaies present with the Belly when the Navel-string comes first: for though he presents naturally as to the Figure of his Body, that is with the Head first, yet sometimes the Navel-string falls down and comes before it; for which cause the Child is in much danger of death, at least if the Labour be not very quick, because the Blood (that ought to pass and repass through those Vessels which compose it; for to nourish and enliven the Child, whilst he continues in the Womb) being coagulated, hinders the circulation which ought to be there made; which happens as well by the constriction, as the cold those Vessels receive, being much pressed in the Passage, when it comes together with the Head or any other part, as also because the Blood doth there coagulate (as is said) by reason of the cold which it takes by the coming forth of the Navel-string.

But though this accident may cause the Infant's suddain death, 'tis not so much for want of nourishment; without which he might pass a day or more, there being blood enough in his Body for that purpose: but because the Blood can be no longer vivified and renewed by Circulation, as it hath continual need, which being obstructed, alwaies causeth the creature's sudden death, sooner

or later, according as it is more or less obstructed.

I know it may be objected, that though the Circulation be so hindered and intercepted by the coming forth of the String, it need not therefore cause such a sudden death to the Child, because the Blood may notwithstanding circulate in all the other parts of the body: to which I answer, that in respect to the Infant, 'tis either absolutely necessary, that the Blood, for want of respiration,

should be elaborated or prepared in the * *Placenta*, and therefore there must be a free communication, or for

want of it, that the Infant must immediatly breath by the mouth, as well to be refreshed, as to drive forth by expiration the fuliginous vapours, which not being possible whilst in the Womb, it must unavoidably be choaked and dye in a very small time, if it wants both together. Wherefore in this case the Woman must without any delay be delivered, which if Nature doth not speedily perform, the Child must be drawn forth by the Feet.

Women that have great Waters and a long string to the Burthen are very subject to this mischief; for the Waters coming forth in great abundance at the breaking of the Membranes, do often at that instant draw the string, which swims in the midst, forth along with them, and much the easier if the Infants Head be not advanced very forward into the Passage, for to hinder the coming forth of it in this manner.

As soon as 'tis perceived, you must immediatly endeavour

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endeavour to put it back, to prevent the cooling of it, behind the Childs head, lest it be bruised as we have already noted, whereby the blood may coagulate there; keeping it in that place where it was thrust back, until the Head being fully come down into the Passage, may hinder the coming down of it again: which may be effected by holding it up with the Fingers of one hand on that side it comes down, until the Head be advanced as abovesaid; or in case the hand be taken away, to put a piece of fine soft rag between that side of the Head and the Womb, for to stop up the way it came down by, alwaies leaving an end of the rag without the body, for to draw it forth by at pleasure.

But sometimes, notwithstanding all these cautions and the putting back of it, it will yet come forth every Pain: then without further delays the Chirurgeon must bring the Child forth by the Feet, which he must search for, though the Infant comes with the Head; for there is but this only means to save the Childs life, which it would certainly lose by the least delay in this case. Wherefore having placed the Woman conveniently, let him gently put the Head, which offers, back; (provided it be not engaged too low among the bones of the Passage, and that it may be done without too great violence to the Woman, for in that case * it will * See the Preface. be better to let the Child run the hazard of dying, than to destroy the Mother) and then slide up his Hand well anointed under the Breast and Belly to search for the Feet, by which he must draw it forth according to former directions; this being dispatched,

ed, let him immediately take great care of the Infant, which is ever in this case very feeble.

CHAP. XXVIII.

Of a Labour wherein the Burthen either first offers, or first comes quite forth.

THe coming forth of the Navel-string before the Infant, of which we have treated in the foregoing Chapter, is often cause of his death, for the reasons there given: but the coming first of the Burthen, is yet much more dangerous; for besides that the Children are then ordinarily Still-born, if they be not assisted in the very instant, the Mother likewise is often in very great peril of her life: because of her great floodings, which usually happen, when it is loosened from the Womb before its due time, because it leaves all the Orifices of the Vessels open, to which it did cleave, whence flows incessantly Blood, until the Child be born: because the Womb, whilst any thing continues there, doth every moment strongly endeavour to expel it, by which means it continually voids and epresseth the blood of the Vessels, which are always open (as we have already often explained) when the Burthen is so separated, as long as the Womb remains extended and cannot be closed, until it hath voided all that it did contain, and comes by the contraction of its membranous substance to stop them, by pressing them together. Wherefore if we ought to be vigilant to succour an Infant when

when the String comes first, we ought much more to be so when the Burthen comes forth first, and the least delay is ever cause of the Infants sudden death, if the Woman be not speedily delivered; because the Infant cannot stay then long in the Womb without suffocation, standing then in need of breathing by the Mouth (as is explained in the foregoing Chapter) the Blood being no longer vivified by the preparation made in the Burthen, the use and function of which then ceaseth, from the instant it is separated from the Vessels of the Womb, to which it was joined, for which reason there immediatly follows a great flooding, which is so dangerous for the Mother, that without speedy help, she soon loseth her life by this unlucky accident.

When the Burthen is not wholly come forth, but lies in the Passage, some advise to put it back before the Child be fetcht; but I am not of that opinion, for when it comes into the Passage before the Infant, it is then totally divided from the Womb, at the bottom of which it ought ordinarily to be situated and fastened, until the Child be born: but, because (as soon as it is wholly loosened, as it alwaies is when it comes first) it becomes a Body altogether unnatural; it must never be thrust back, but contrarily be fetched away, and at the very moment after bring the Child by the Feet, although it came naturally with the Head first: for what reason can there be to put it back, since it is of no use to the Infant, from the moment it is separated from the Womb, as cannot be denied? And such a proceeding is so far from being useful, that this Burthen would much hinder the

Chirurgeon from being able to turn the Child, as he ought, for to bring it by the Feet.

Wherefore when it presents in the Passage, which may be soon perceived it they find every where a soft substance, without the least resistance to the touch of any solid part; finding likewise the String fastened to the middle of it, and the Woman flooding extremely, as is ordinary at such times: then, instead of thrusting it back, the Burthen must be brought away, that so there may be more liberty and room to extract the Child, according to former direction.

The Burthen, being quite loosened from the Womb, and coming first in the Passage, must not be thrust back into it again, much less must it be put back, when it is quite come forth of the Body: Care must be only taken not to cut the String till the Child be born, not out of hopes of any benefit from it to the Infant during the Delivery, but that so much time may not be lost before the Infant be fetcht, which is then ever in great danger, as also the flooding may be the sooner stoppt, which happens for the most part as soon as the Woman is delivered, for which reasons it must be with all possible speed dispatched.

Sometimes, notwithstanding this dangerous accident, the Child may be born alive, if timely succoured: but it is then so weak, that 'tis hard to discover at first, whether it be living or dead.

When it so happens, the Midwives do ordinarily before they separate the Burthen put it into a skell of hot Wine, and imagine, with no small Superstition, that in case it comes to it self, the vapours of the warm Wine was the cause of it, being conveyed

veyed by means of the String into the Infants Belly, and so giving it vigour : but it is more credible, that being almost suffocated for want of respiration as soon as it needed it, it begins now by means of it to recover from that fainting : but nevertheless, there is no hurt in keeping the custome, though superstitious, since it can do no prejudice, and may satisfie preoccupied spirits, provided necessities be not neglected, in being blindly carried away with this conceipt.

CHAP. XXIX.

Of Floodings or Convulsions in Labour.

THe best expedient and safest remedy for Mother and Child in this case, who are both in great danger, is to deliver the Woman presently, without any delay, fetching the Child away by the Feet, at what time soever of the Woman's being with Child, whether at full reckoning or not.

I have at large directed in the 20th Chap. of the first Book, speaking of Floodings, what ought to be done in these Cases, where I related the sad story of one of my Sisters, which I shall not again repeat, being too sadly affected with it, but refer the Reader to that Chapter for sufficient directions in these dangerous accidents.

CHAP. XXX.

*How to deliver a Woman when the Child is
Hydropical, or Monstrous.*

A Child may in the Womb have either the Dropsy of the Head, called *Hydrocephale*, or of the Breast, or of the Belly: And when these parts are so filled with Water (as I have sometimes met with) that they are much too big for the Passage through which the Child must issue; then, notwithstanding any Throws or Endeavors the Woman may attempt to bring it forth, 'tis impossible she should effect it without the help of Art: as likewise when the Child is monstrous, either by being only too big in the whole Body, or in any particular part; or by being joined to another Child.

If the Child be living that hath the Dropsy, when the Woman is in Labour, it must be destroyed to save the Mother, by making a hole in either the Head, Breast or Belly of it, where the Waters are contained, that being emptied by the aperture so made, the Child may the easier be drawn forth; or else he must necessarily dye in the Womb, not being able to be born, and remaining there will also kill the Mother; wherefore to save her life,

the Infant must be by an

* See the Preface.

* indispensable necessity brought forth by Art, since

it is impossible it should come of it self, which may

be done with a crooked Knife sharp at the very point, like that marked C, among the Instruments at the end of the Second Book, the Chirurgeon proceeding in the following manner.

After that the Woman is placed conveniently for the Operation, he must slide up his left Hand on the right side of the inferiour part of the Infants Head, if the Waters be continued therein, which he will perceive by the extraordinary bigness and extent of it, the *Sutures* much separated, and the Bones of it far distant one from the other, by reason of the distension made by the inclosed Waters, of which being very certain, let him slide with his right Hand along the inside of his left this crooked Knife, taking care that the point of it in introducing it, be alwaies towards his left Hand, for fear of wounding the Womb, and having conducted it close up to the Head, against one of the *Sutures*, let him turn the Knife towards it, and make an aperture large enough to let out the Water, and then it will be very easie to bring forth the Child; forasmuch as the other parts are then usually small and much consumed.

If these Waters were contained in the Breast or Belly, then the Childs Head, being no bigger than ordinary, may be born; but the Body being exceedingly swelled with the Waters will stay behind, as it happened to that Child that had a Dropsy of the Belly, which I mentioned in the 19th Chap. of this Book, to which I refer you, because 'tis much to this purpose.

The case being thus, let the Chirurgeon slide up his left Hand, as aforesaid, and the instrument with the right, just to the Breast or Belly, for to make

make an Incision, just as I did in the same case related in the said 19th Chap. for to let out the Waters, after which he may with much ease finish the Operation.

You must know, that 'tis much more difficult to deliver a Monstrous Birth, or two joined together, than one that hath the Dropsy : because the bigness of the Hydropick parts may be easily lessened by a single incision, which is sufficient to let out the Waters which distend, and then 'tis easy to dispatch the rest.

But when a monstrous Child is to be extracted, or a double one, a single apertion is not enough, but sometimes 'tis necessary to take off whole members from those Bodies, which makes the Operation much more painful and laborious, and requires more time and skill to effect it ; in which case the left Hand must be introduced into the Womb, and the sharp Knife of the right just to the parts that are to be divided and separated, and there with all the care that may be, the member of the monstrous Child must, if possible, be taken off just at the Joint ; and when there are two Children joined together, the Separation must be made just in the place where they join, and afterwards they may be delivered one after the other ; always taking them by the Feet ; and if it hath but one, the same thing may be accomplished, after having lessened the bigness of it, by cutting off some one of the Members.

I have already shown in the 15th Chap. of this Book, speaking of the extraction of a Childs Head left alone behind in the Womb, of what fashion this Instrument ought to be, that the Operation may

be

be conveniently performed, and that it should be as long as an ordinary Crochet, for the more surety and facility; because that holding the handle of it with the right Hand, it may be thrust, drawn, sloped and turned without pain to any side at pleasure; and with the left, which is within the Womb, it may be guided for to cut and dismember more skilfully and easily those parts which must be separated. Wherefore it ought to have a Handle so long, that the Chirurgeons right Hand without the Womb may hold and govern it as above-said, and conduct it the better in the Operation, which could not be so safely and conveniently done, if this instrument were so very short, as all other Authors recommend: because in this occasion the Chirurgeons hand is so constrained and pressed in the Womb, that he can hardly there have the liberty to move his Fingers ends, which is the cause why he cannot without much difficulty govern such an Instrument with one Hand only, unless he would very much force and offer violence to the Womb, and exceedingly endanger thereby the poor Womans life. Let us now come to the extraction of a dead Child, and show the several ways of doing it.

CHAP. XXXI.

Of delivering a dead Child.

When the Infant is dead in the Mothers Belly, the Labour is ever long and dangerous, because

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cause for the most part it comes wrong; or, though it comes right with the Head, the Womans Pains are so weak and flow in these cases, that she cannot bring it forth, and sometimes she hath none at all; forasmuch as Nature half overthrown by the death of the Child, which cannot help it self, labours so little, that many times it cannot finish the business it hath begun, but must yeeld without the help of Art, of which at that time it hath great need: However, before you come to Manual Operation, endeavour to stir up the Womans Pains with sharp and strong Clysters, for to bring on Throws to bear down and bring forth the Child; but if this prevails not, she must be delivered by Art.

We have declared in the 12th Chap. of this Book the signs to know a dead Child in the Womb, of which the chief are; if the Woman perceives it not to stir, nor hath a long time before; if she be very cold, much pain and heaviness in the bottom of her Belly; if the Child be not supported, but always falls like a mass of Lead to that side on which the Woman lies, if the Burthen or Navelstring hath been a long time in the World; and if no Pulsion be there felt, and that dark and stinking putrid matter comes away from the Womb. All these signs together, or most of them, shew the Child is assuredly dead; which when the Chirurgion is certain of, he must do his endeavour to fetch it as soon as possibly he can, and having placed the Woman according to former directions; if the Child offers the Head first, he must gently put it back, until he hath liberty to introduce his Hand quite into the Womb, and sliding it all along un-

der the Belly to find the Feet, let him draw it forth by them, as is formerly taught; being very careful to keep the Head from being lockt in the Passage, and that it be not separated from the Body, which may easily be done when the Child being very rotten and putrified, the Chirurgeon doth not observe the circumstances often repeated by us, that is (in drawing it forth) to keep the Breast and Face downwards: And if, notwithstanding all these precautions, the Head, because of the great putrification, should be separated and remain behind in the Womb, it must be drawn forth according to the directions formerly given in the proper Chapter.

But when the Head coming first is so far advanced and engaged among the Bones of the Passage, that it cannot be put back, then being very sure by all the Signs together, or most of the chief of them, that the Child is certainly dead, 'tis better to draw it so forth, than to torment the Woman too much by putting it back, for to turn it and bring it by the Feet: but because it being a part round and slippery, by reason of the moisture, the Chirurgeon cannot take hold of it with his Fingers, nor put them upon the side of it, because the Passage is filled with its bigness, he must take a * Crochet

* *Though this Crochet cannot hurt a dead Child, yet it may endanger the Woman, by slipping: Wherefore the Translator of this Treatise cannot approve of it, having an easier and safer way to do this Operation, as he mentions in his Preface to this Book.*

like one of those marked *A* and *B*, amongst the Instruments at the end of this *Second Book*, and put it up as far as he can without violence between the Womb and the Childs Head, observing to keep the point of it towards the Head, where he must fasten it, endeavouring to give it good hold upon one of the Bones of the Skull, that it may not slide, forcing in the point of it, which must be strong, that it may not turn; and after the Crochet is well fixed in the Head, he may therewith draw it forth, keeping the ends of the Fingers of his left Hand flat upon the opposite side, the better to help disengage it, and by wagging it by little and little, to conduct it directly out of the Passage.

It were to be wished that it were possible to introduce the * Crochet

* *All this were to no purpose, if any had the Art to do it, as the Translator says, and mentions in his Preface to this Book,*

so far, that one might fix it (for the better hold) in one of the Eye-holes, or cavities of the Ears; but very often there is not room at first to carry them beyond the middle of the

Head, and then they must be fastened according to our directions, and rather if possible on the hinder part than any other, that so it may be drawn forth in a straight line; and when by the first fastening of the Crochet the Head is drawn lower, and begins to be disengaged, you may loosen it out of the first place, for to fasten it farther up, to take stronger hold, * and so successively removing and

* *This is needless and dangerous in case Crochets be used, unless they loose their hold.*

fastening

listening of it until the Head be quite born, and then taking hold of it immediately with the Hands only, the Shoulders may be drawn into the Passage, and so sliding the Fingers of both Hands under the Armpits, the Child may be quite delivered, and then the Burthen fetched to finish the Operation according to knowledge; being careful not to pull the Navel-string too hard, lest it break, as it often happens when it is corrupted.

If the dead Child (of which above all there must be good assurance) comes with the Arm up to the Shoulders so extremely swelled, that the Woman must suffer too much violence to have it put back, 'tis best then to take it off at the Shoulder-joint, by twisting it three or four times about, as we have already taught in another place, by which means there is no need of either Knives, Sawes or sharp Pincers, as some Authors will have it; it being very easily performed without all that provision, because of the softness and tenderness of the Body: after that, the Arm so separated and no longer possessing the Passage, the Chirurgeon will have more room to put up his Hand into the Womb to fetch the Child by the Feet, and bring it away as hath been directed.

Although the Chirurgeon be sure the Child is dead in the Womb, and that it is necessary to fetch it by Art, he must not therefore presently use his Crochers, because they are never to be used but when Hands are not sufficient, and that there is no other remedy to prevent the Womans danger, or to bring the Child any other way; because, very often, though he hath done all that Art directs, persons present, that understand not these things,

will

will believe that the Child, was killed with the Crochets, although it had been dead three days before, and without other reasonings or better understanding of the matter, for recompense of his saving the Mothers life, requite him with an Accusation of which he is altogether innocent; and, in case the Mother by misfortune should afterwards dye, lay her death also to his charge, and instead of praise and thanks treat him like a Butcher or Hangman; to which divers Midwives are usually very ready to contribute, and are the first that make the poor Women, that have need of the Men, afraid of them. So much they are in fear of being blamed by them, for having themselves been the cause (as some of them often are) of the death of Infants, and many ill accidents which after befall the poor Women, not causing them to be helped in due time, and from the moment they perceive the difficulty of the Labour to pass their understandings.

To avoid therefore these calumnies, let the Chirurgion never use the Crochets but very rarely, and when there is no other way, as also to endeavour his utmost (as much as the case will permit) to bring the Child whole although dead, and not by bits and pieces, to give the wicked and ignorant no pretence of blame; I say, as much as the case will permit, that is with respect to the Woman under his Hands: for to save her, he had better sometimes bring the dead Child with * Instruments,

** Those Instruments very unsafe for the Woman, and having a better way, cannot pass them without manifesting my dislike.*

than

than kill her, by tormenting her with excessive violence for to bring it whole: but in a word, we must in conscience do what Art commands, without heed to what may be spoken afterwards, and every Chirurgeon, that hath a well ordered conscience, will ever have a greater regard to his duty than reputation; in performing of which let him expect his reward from God.

CHAP. XXXII.

Of extracting a Mola and false Conceptions.

HAVING at large spoken in another place of the Causes, Signs and Differences of *Mola's* and false Conceptions, and shewed that a *Mola* alwaies ariseth from a false Conception, there remaineth nothing to be demonstrated but the manner how it ought to be extracted. Now since these things contained in the Womb, are totally preternatural; their expulsion must be procured as soon as possible, which is very difficult, when these strange Bodies cleave to it, and especially the *Mola*, which not being drawn forth, will often continue to fastened two or three whole years, nay sometimes the whole remaining part of the Womans life, as *Paré* tells us in the Story of the Pewterers wife that had one seventeen years, whom he opened after her death.

To avoid the like accident and abundance of inconveniences which a *Mola* brings, it must be endeavour'd to be expelled as soon as may be, trying, before you come to Manual Operation, to cause
 S the

the Woman to expel it of her self: to which purpose give her strong and sharp Clysters, to stir up Throes for to open the Womb to give way to it, relaxing and moistening it with emollient Ointments, Oils and Grease, not omitting bleeding in the Foot, and half Baths, if there be occasion. The *Mole* will certainly be excluded by these means, provided it be but of an indifferent bigness, or that it adheres little or not at all to the Womb: but if it cleaves very strongly to the bottom of the Womb, or that it be very big, the Woman will hardly be rid of it without the help of a Chirurgeons hand; in which case, after that he hath placed the Woman conveniently, as if he were to fetch a dead Child, let him slide his Hand into the Womb, and with it draw forth the *Mole*, using (if it be so big as that it cannot be brought whole, which is very rare, because it is a soft tender body, much more pliable than a Child) a Crochet or Knife to draw it forth, or divide it into two or more parts, as the case shall require. If the Chirurgeon finds it joined and fastened to the Womb, he must gently separate it with his Fingers ends, his Nails being well pared, putting them by little and little between the *Mole* and the Womb, beginning on that side where it doth not stick so fast, and pursuing it so until it be quite loosened, being very careful, if it grows too fast, not to rend nor hurt the proper substance of the Womb, proceeding according to the directions we have given for the extraction of a Burthen staying behind in the Womb when the String is broke off.

This *Mole* never hath any String fastened to it

nor any Burthen from whence it should receive its nourishment: but it doth of it self immediatly draw it from the Vessels of the Womb, to which it is almost alwaies joined, and sticking in some place. The substance of its Flesh is also much more hard than that of the Burthen, and sometimes it is *scirrhus*, which is the cause, why it is not so easily separated from the Womb.

As to a false Conception, though it be much less than a *Mola*, yet it often puts a Woman in hazard of her life, because of great Floodings, which very often happens, when the Womb would discharge it self of it, and endeavors to expel it: which seldom ceaseth until it be come away; because it doth still endeavour to exclude it, by which the Blood is excited to flow away, and in a manner squeezed out of the open Vessels.

The best and safest remedy for the Woman in this case, is to fetch away the false Conception as soon as may be, because the Womb can often very hardly void it without help; for it being very small, the Womans impulse in bearing downwards cannot be so effectual when the Womb is but little distended by so small a body, as when it contains a considerable Bulk in it; for then it is more strongly compressed with the Throws. Many times 'tis exceeding difficult to fetch these false Conceptions, because the Womb doth not open and dilate it self ordinarily beyond the proportion of what it contains, and that being very little, so is its opening; which is the reason why the Chirurgion sometimes is so far from introducing his whole Hand, that he can scarce put in a few Fingers, with which he is obliged to finish the Operation,

ration as well as he can, proceeding in the following manner when he hath introduced them.

Having well anointed his Hand, he must slide it up the *Vagina* unto the inward Orifice, which he will find sometimes but very little dilated, and then very gently put in one of his Fingers, which he must presently turn and bend on every side, until he hath made way for a second, and afterwards a third, or more if it may be done without violence; but many times one hath enough to do to get in but two, between which he must take hold (as Crabs do with their Claws when they take any thing) of the false Conception, which he must gently draw forth, and also the clotted Blood which he there finds; afterwards the Flooding will undoubtedly cease, if no part of this Conception be left behind, as I have often found by experience when I have taken the same course: but if the inward Orifice cannot be more dilated than to admit but one Finger, and that the Flooding is so violent as to endanger the Womans life, the Chirurgeon then having introduced his Fore-finger of his left Hand, must take with his right an Instrument, called a Cranes-bill, or rather a *Forceps* (like that marked G, among the Instruments at the end of the Second Book,) and guide the end of it along his Finger, for to fetch with this Instrument the strange Body out of the Womb, taking heed not to pinch the Womb, and that the Instrument be always conducted by the Finger first introduced, which will judge and distinguish by the touch between this Conception and the substance of the Womb: in doing which, there being no other way, he will certainly accomplish his business.

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I thought of causing such an Instrument to be made upon an occasion, where it would have stood in good stead, if I had had it, with which I have since (proceeding according to the directions I have just now given) lately drawn forth a false Conception of the bigness of a Walnut, which without doubt had else that day been the death of one named Madam *Le Roy*, dwelling near the great stairs at the place *Mansart*, by reason of the horrible loss of Blood which it occasioned, and which lasted as soon as I had drawn forth this Conception, which I could never have done any other way, because the inner Orifice of the Womb was not open, nor could be dilated more than for one Finger at most, after the manner I have declared: besides the pressing danger of the accident, the delay of the Operation had indubitably been the death of this Woman, who, thanks be to God, is since well recovered.

CHAP. XXXIII.

Of the Cæsarean Section.

WHEN a big-bellied Woman is effectively in Labour, 'tis very rare but that an experienced Chirurgion can deliver the Child dead or alive, whole or in pieces; in a word, that he may do the work completely, if he believes himself as the case requires, and according to the directions given in each particular Chapter foregoing, treating of the several unnatural Labours, without being necessitated

necessitated in a very inhuman, cruel and brutish manner to have recourse to the *Cæsarean Operation* during the Mothers life, as some Authors have too inconsiderately ordered, and some practised themselves.

In truth, there would seem some pretext of lawful excuse to make Martyrs of these poor Women, if it were to bring a second *Cæsar* from them, whom they say was born in that manner, or some great and new Prophet. In the times of the ancient Pagans they did use to sacrifice innocent Victims for the publick good, but never for a private I know very well that they palliate it with pretence of baptizing the Infant, which else would be deprived of, because the Mothers death, is the most part cause of the Childs: but I do not know that there ever was any Law, Christian or Civil, which doth ordain the martyring and killing the Mother, for to save the Child: 'Tis rather to satisfy the avarice of some people, who care not much whether their Wives die, provided they have a Child to survive them; not for the sake of Children, but to inherit by them afterwards for which cause they do easily consent to this cruel Operation, which is a damnable policy. If they say, to render the fact less horrible in appearance that it must never be undertaken but when a Woman is reduced to the utmost extremity, I answer, that a Woman often recovers beyond hope or probability: And, if they object that she may likewise escape after this Operation, I do not deny it, by the testimony of the most experienced Chirurgeons that have practised it, who always had bad success, all the Women ever dying in a

short time after. I do highly commend *Guillemeau*, who to disabuse the world for such a wicked and pernicious practice, confesseth, speaking of this fatal Operation, and owns (by way of repentance) that he did himself twice in the presence of *Ambrose Pare* put it into practice, and saw it thrice done more by three several very expert Chirurgeons, who omitted never a circumstance to make it succeed well, and notwithstanding all the Women died.

As for *Pare*, he will not acknowledge that he saw those two Operations of *Guillemeau*, because he will not have Posterity know that he was able to consent to so great a cruelty; but contents himself with advising only, that it should never be undertaken till the Woman is dead; because there is no possibility she should escape it, not only because of the irregular wound, which is convenient to make for this purpose in the Belly, but chiefly for that in the Womb, and for the excessive Flux of Blood which will immediately follow. However, contrary to the opinion of two such famous Chirurgeons, there are some rash persons, who do obstinately maintain (though with but a little reason as *Rauwolf*) that it is not impossible for a Woman to escape, because they have seen some that have had the Bones of their dead Children come forth by an abscess of the Belly, after that the Flesh of them had passed the natural way in Suppuration, which Bones by little and little had pierced the Womb and the Belly also, and after that they were so drawn forth, yet the Women recovered. As also others did not dye, whose Wombs after Precipitation and perfect putre-

faction and Gangrene, was totally cut away. Indeed we must acknowledge what experience hath many times taught us, as it hath these things, which I believe have happened, and may again as well as those (though rarely): but it doth not follow, that this *Cæsarean* Operation must needs succeed as well; because here is made, at one stroke a very great wound in the Belly and Womb, which is ever the death of the poor Woman immediately, or soon after.

But when Nature it self begins to separate and pierce these parts, by means of these Bones, to cast them forth by some new way which it makes, not being able to do it by the common and natural, for want of the help in due time of skilful persons, it doth it by degrees and not all at once; and according to the measure it drives these preternatural Bodies forth of the Womb, so it repairs and rejoins it at the same time proportionably, and without the least Flux of Blood, which happens quite otherwise in the artificial Operation: and if it be true, that some Women have ever escaped it, we must believe it a Miracle, and the express hand of God, (who can when He pleaseth raise the dead, as he did *Lazarus*, and change the course of Nature, when 'tis his good pleasure) rather than an effect of humane prudence.

There are many good Women who, for having only heard some Gossips speak of it, are very confident that they know such and such yet living, whose sides had been so opened to fetch the Child so out of their Belly. Nay more, there are some that affirm they know those that have had this Operation practised on them three or four times successively,

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successively, and yet alive; and the better to confirm so notable a Lye, which they had only heard recited by others, and after having three or four times told it, believe it themselves for truth, as much as if they had seen it with their own eyes, will tell so many circumstances and particulars, that they easily persuade those that do not understand the impossibility of it.

There are others agin, who shewing the scars of some abscess they have had in their Belly, would persuade that a Child hath been taken out there; to which purpose I will relate what I once saw my self, concerning a big-bellied Woman that was in the *Hôtel de Dieu* at *Paris*, when I there practised Deliveries. This Woman, whether through cunning, feigning to believe the thing, or through ignorance, really believing it, did testify to all the Women who were then in the said *Hôtel de Dieu*, as also to an infinite of other persons, and amongst the rest, to a good old Nun that governed all, whom they called Mother *Bonquet*, (and at that time did preside in the Hall of Deliveries, like another goddess *Lucina*) that she was very much afraid, that they must open her side to deliver her, as it had been two years before; in all which time she had made the same relation to above a thousand several persons, each of which, it may be, had again related it to as many more, shewing to all of them a great Skar, by which she said the Chirurgeons had drawn the Child out of her Belly. Wherefore she prayed Mother *Bonquet* to recommend her to me, desiring rather to be delivered by me who was a Chirurgeon, because she might be more safely helped in such a business, than by a Midwife.

Midwife. This good Nun giving me this account, which she verily beleeved according to the relation; I told her, that not having faith enough to imagine it, I could not believe the *Cæsarean* Section had been made on that Woman, as she had perswaded her. If you do not beleeve it, replied she, I will fetch her presently to you, and she herself shall tell you every circumstance. And immediately she caused her to be fetch'd; who told me the same she had told her: but having particularly examined her from what part the Child was to drawn forth, and whether she felt any great pain in the Operation. She answered me, None; because she was then senseless, and remained so five or six days after: I asked her then, how she was certain that the Child was brought away by incision in her Belly, being she was not at that time sensible? She answered, the Chirurgeons assured her it was so; and at the same time she shewed me a great Scar, situated just on the right side of her Breast, about the middle of the Ribs, where she had a great abscess, of which this Scar remained; and when I had told her, that the Breast was not the place whence a Child should be fetcht, and that I had with my arguments convinced her of the impossibility of what she had believed, and made others to beleeve, as the women of the *Hôpital de Dieu* and Mother *Bouquet* also; they began to be disabused and continued so, when three days after this conference, I had delivered her with the greatest facility, although it was a very great Child, which came quickly. If one should examine well the beginning of all the Stories of this Operation, strictly weighing them, as I did upon this occasion, they

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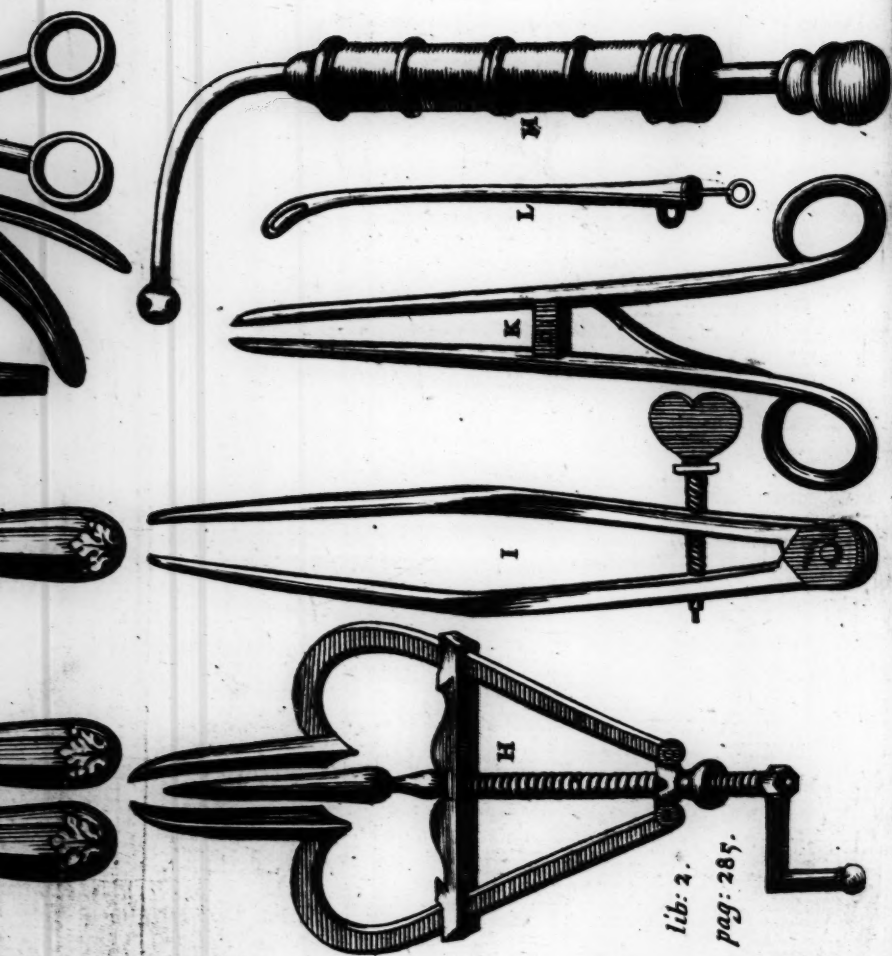
they would be found to be meer fables, and that that which *Rassus* reports of his *Cæsarean* Labours, is nothing but the ravings, capriciousness and imposture of their Authors.

Now if, because of all these reasons, a Chirurgion must never practise this cruel Operation whilst the Mother is alive, although the Child be certainly so (which for all that may sometimes be very doubtful) I pray what infamy would it be for him, if having so killed the Mother, the Child should also be found dead, After it was thought to be alive? much more ought he to abstain from it, when he is well assured it is dead; wherefore he had better pull it in pieces and bits (if it cannot be otherwise) by the natural way, than so to butcher the Mother for to have it whole; and if the Womb were so little open, that he could not have liberty to work there, nor introduce any instrument into it, he had better wait a little, alwaies trying to dilate the Passages by Art, as we have formerly directed, than to cast her down almost in an instant, with such a blow of despair, as the making of this *Cæsarean* Operation, which for this reason is never to be undertaken, still immediately after the Mothers death, when the Chirurgion must be present for to act according to the following directions, as well in hopes of finding the Child living, as to obey an Ordinance which expressly forbids the burying a Woman with Child before it is taken out of her Belly. To accomplish which as it ought to be, when he perceives the Woman in the agony, he must quickly make ready all things necessary for his work, to lose no time, because delay will certainly be the death of the Infant, which else a few

few moments before might have been brought alive : there are some, that when the Woman is just a dying, would have somewhat put between her Teeth to keep her Mouth open, and likewise in the outward part of the Womb : to the end the Infant receiving by this means some little air and refreshment, may not be so soon suffocated : but all this mystery will avail but little ; because the Child lives only by the Mothers blood, whilst it is in the Womb ; but if he will needs do so, Life is rather to contend the company, than out of any belief of the good it will do. As soon then as the Woman hath breathed her last, and that she is dead (to which all the company must agree) he shall begin his Operation, which the *Greeks* call *Embriolicis*. Most Authors would have it made on the left side of the Belly, because it is more free from the Liver, which is on the right ; but if my opinion may be authentick, it will be better and more skilfully made just in the middle of the Belly, between the two right Muscles ; because in this place there is only the Coverings and the white Line to cut, whereas on the side it cannot be done without cutting the two oblique and cross Muscles, which being couched one under the other, makes a considerable thickness, besides that it bleeds more than towards the middle of the Belly ; nor that the loss of blood is of any moment (which will flow when the Woman is but just dead) but because it hinders by its flowing, the seeing distinctly how to make the Operation as it should be. To dispatch then with more ease and speed, the Chirurgion having placed the dead Body that the Belly may be a little raised, let him take a good sharp

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incision Knife, very sharp of one side, like that marked E in the table of Instruments at the end of this Chap. with which he must quickly make, at one stroak, or [at two or three at most (if he will for the greater surety) an incision just in the middle of the Belly, between the two right Muscles unto the *Peritonæum*, of the length and extent of the Womb or thereabouts; after that he must only pierce the *Peritonæum* with the point of his Instrument, to make an orifice for one or two of the Fingers of his left Hand, into which he must immediately thrust them, for to cut it (lifting it up with them, and conducting the instrument for fear of pricking the Guts) in proportion to the first incision of the * Coverings, which * *Skins*. having done, the Womb will soon appear, in which he must make an incision in the same manner as he did in the *Peritonæum*; being careful not to thrust his instrument at once too far in, thinking so find the Womb a finger or two thick, as all Authors affirm contrary to truth, in which he would be deceived, as those are that never well considered it; for it is very certain, that at the time of Labour, whilst it contains the Child and Waters in it, it is not above a single line thick, or the thickness of half a Crown, although they have all sang to us, that by divine Providence and a Miracle, the more 'tis extended with the Child, the thicker it grows, which is absolutely false; it being only true, that it is at that time a little thicker at the place where the Burthen cleaves, where its substance is then as it were spongius; but every where else it is very thin, and becomes the more so by how much it is more extended, un-
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til being emptied by the Birth of the Child, it begins to grow thicker, in contracting and gathering to it self all its substance; which was before very much extended. It being just like the Bladder which being full is very thin, and being empty appears to us of half a Fingers thickness, which filling again waxeth thinner in proportion to the Urine that flows to it: having then so opened the Womb, he must likewise make an incision in the Infants Membranes, taking care not to wound it with the instrument, and then he will soon see it, and must immediatly take it out with the Burthen, which he must nimbly separate from the bottom of the Womb; and finding it to be yet living, let him praise God for having so blessed and prospered his Operation.

But the Children so delivered in these cases are usually so weak, (if not quite dead, as it often happens) that 'tis hard to know, whether 'tis alive or dead. Yet one may be confident the Child is living, if by touching the Navelstring the *Umbilical* Arteries are perceived to move, as also the Heart, by laying the Hand on the Breast; and if it prove so, means must be used to fetch it to it self; spouring some Wine in the Nose and Mouth, warming it until it begins to stir of it self. Midwives usually lay the Burthen very hot on the Belly of such weak Children; if that helps, 'tis rather because of the temperate heat of it, than for any other cause: for 'tis impossible the Infant should receive any spiritus from it, after it is once separated from the Womb, and yet less when the Woman is dead. As to the heat of it, it can no wise hurt, but the weight of this mass layed on the Belly, may rather

choak it, by the compression it makes, than do it any good; besides, when the Burthen is grown cold, they put it in a Skeller of hot Wine, from whence they think the Spirits renew, which being conveyed through the String into the Childs Belly, gives it new force: but as I have said already, that is very useless, and the best and speediest remedy is immediately to separate it, and open the Childs Mouth, cleaning and unstopping also the Nose, if there be any filth, to help it so to breath freely, keeping it all the while near the Fire, until it hath a little recovered its weakness, spouting some Wine into the Nose and Mouth of it, that he may a little tast and scent it, which can not hurt it in this juncture, if one observes some moderation in the thing.

Having now at large treated in this Second Book as well of natural as unnatural labours, and given sufficient instructions to a Chirurgeon to enable him to help Women in the first, and to remedy all the different accidents of the latter, so which he may be dayly called, there rests nothing now to finish it, but to represent the Instruments proper to this Art. And then we will pass to the Third Book, where we must handle many things, which they must necessarily know that intend to practise Deliveries.

Explication of the Instruments.

- A, A Crochet or Hook to draw forth a dead Child.
- B, Another Crochet for the same purpose, according as the case requires, either bigger or less; both of

of them must be strong enough, and very smooth and equal, that the Womb may not be hurt in the Operation, and above ten large Inches long, or thereabouts, and their Handles must be of a moderate bigness, for the firmer holding of them.

- C, A crooked Knife, equal in length to the Crochets, fit for the separating a monstrous Child, or piercing of the Belly of an hydropical Infant, or opening the Head to empty the Brains, or to divide it in pieces, when, because of its bigness or monstrousness, it remains behind in the Womb, separated from the Infants Body.
- D, Another small crooked Knife for the same purpose, but not so convenient, because it cannot be guided but with one Hand.
- E, A sharp Incision-knife fit for the Cæsarean Section, soon after the Mothers death.
- F, A Cranes-bill, fitted for the drawing forth of the Womb any strange Body, or false Conception, when the whole Hand cannot be introduced.
- G, Another Instrument for the same purpose.
- H, A Speculum Matricis with three branches to open the Womb, for to discover Ulcers or other Maladies, sometimes there deeply situated.
- I, Another of two Branches, for the same purpose.
- K, Another yet more commodious.
- L, A Catheter to let out the Urine, when the Woman cannot make Water.
- M, A Syringe for injections into the Womb.

End of the Second Book.



The Third Book.

Treating of Women in Child-bed, and of the Diseases and Symptomes befalling them at that time: Of Children new-born, and their ordinary Distempers, together with necessary directions for to choose a Nurse.

GOing with Child is an rough Sea, in which a big-bellied Woman and her Infant floats the space of nine Months: And Labour, which is the only Port, is so full of dangerous Rocks, that very often both the one and the other, after they are arrived and disembarked, have yet need of much help to defend them against divers inconveniences, that usually follow the Pains and Travail they have undergone in it.

We have directed in the First Book, treating of the Diseases which are incident to Women with Child, how to prevent their suffering shipwrack in this Sea during so long a Voyage. In the Second we have taught, how they may enter this Port, and disimbarque there with safety by Delivery: It remains then to compleat our work, that we expound in this Third and last, how the Mother and Child must afterwards be ordered, and declare how at this time to prevent and remedy divers Indispositions

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dispositions which often happen to them both. Let us first consider those that arrive to a Woman new layd, and then we shall pass to those that regard a new-born Infant.

CHAP. I.

What is fit to be done to a Woman new-laid, and naturally delivered.

Immediately after the Woman is delivered, and the Burthen come away, care must be taken that the loosening of it be not followed with a Flooding; which if it be not, a soft Closure to the Womb must immediately be applied, five or six double, to prevent the cold Air by entering in, from sudden stopping the Vessels, by which the Woman should cleanse by degrees, whereby there would certainly happen many ill accidents, as great Pains and Grips of the Belly, Inflammation of the Womb, and divers others which we shall mention hereafter particularly, and which may easily be the cause of her death.

When the Womb is so closed, if the Woman was not delivered upon her ordinary Bed, let her be presently carried into it by some strong body, or more if there be need, rather than to let her walk thither; which Bed must be first ready warmed and prepared as is requisite, because of the clear fings; but if she were delivered on it (which is best and safest to prevent the danger and trouble

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of carrying her to it) then all the foul linnen and other things put there for the receiving the Blood, Waters, and other Filth which comes away in Labour, must be presently removed, and she must be placed conveniently in it for her ease and rest, which she much wants, to recover her of the Pains and Labour she endured during her Travail; that is, with her Head and Body a little raised, for to breath the freer and cleanse the better, especially of that Blood which then comes away, that so it may not clod, which being retained causes very great Pains. All this will happen, if they have not liberty to come freely by this convenient scituation, in which she must put down her Legs and Thighs close together, having a small Pillow (for her greater ease if she desire it) under her Hams, upon which they may rest a little: being so put to Bed, let her lye neither of one side nor the other, but just on the middle of her back, that so the Womb may repossess its natural and proper place.

It is an ordinary custom to give the Women, as soon as they are delivered, two Ounces of Oyl of sweet Almonds, drawn without fire, and as much Syrup of *Maiden-hair*, mixed together, which is as well for to sweeten and temper the inside of the Throat, which was heated and hoarse by her continual Cries, and holding her Breath to bear down her Throws during her Labour, as also to the end that her Stomach and Intestines being lined with it, should not be so much afflicted with dolorous Gripes: But this Potion goes so much against the Stomachs of some Women, that being forced to take it with an aversion and disgust, it may do them rather more hurt, than any wise comfort

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them. Wherefore let none have it but those that desire it, and have no aversion to it. I approve rather in this case of a good Broth to be given her, as soon as she is a little settled after the great commotion of Labour; because it will be both more pleasing and profitable than such a Potion. And, having thus accommodated her, and provided for her Belly, Breasts and lower parts, after the manner we shall direct in the next Chapter, leave her to rest and sleep if she can, making no noise, the Bed-curtains being close drawn, and the Doors and Windows of her Chamber shut, that so seeing no light, she may the sooner fall asleep. If she had endured a hard Labour, she must be then ordered as the case requires, and as shall be hereafter declared: but what we have here directed, is only for a natural Labour, and where no extraordinary difficulty happens.

CHAP. II.

Of convenient Remedies for the lower parts of the Belly and Breasts of Women newly delivered.

SINCE the lower parts of a Woman are greatly distressed by the birth of an Infant, it is good to endeavour therefore the prevention of an inflammation there: wherefore as soon as the Bed is cleaned from the foul linnen and other impurities of the Labour, and that the Woman is therein placed

placed, according to the direction of the preceding Chapter, let there be outwardly applied all over the bottom of her Belly, and Privities, the following *Anodine Cataplasm*, made of two Ounces of Oyl of sweet Almonds, with two or three new-laid Eggs, Yolks and Whites, stirring them together in an earthen Pipkin over hot Embers, till it comes to the consistence of a Pultis, which being spread upon a Cloth, must be applied to those parts, indifferently warm, having first taken away the Closures, which were put to her presently after her Delivery, and likewise such clods of Blood as were there left.

This is a very temperate remedy, and fit to appease the Pains which Women ordinarily suffer in those parts, because of the violence then endured by the Infants Birth: it must lie on five or six Hours, and then be renewed a second time if there be occasion, afterwards make a Decoction of Barley, Linseed, and Chervil; or with Marshmallows and Violet leaves, adding to a Pint of it, an ounce of Honey of Roses, with which, being luke warm, foment three or four times a day (for the first five or six days of Child-bed) the bearing-place, cleansing it very well from the Blood, Clods and other Excrements which are there emptied. This *Scrape* is likewise very good to temper and appease the Pains of those parts. Some persons only use to this purpose luke-warm Milk; and many Women, only Barley-water. Great care must be taken at the beginning that no stopping things be given to hinder the cleansings, but when ten or twelve days are past, and that the hush cleansed very sufficiently, Remedies may then be used

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used to fortifie the parts, to which purpose a Decoction is very proper, made of Provence-Roses, Leaves and Roots of *Plantane*, and Smiths water that Iron is quenched in; and when she hath sufficiently and fully done Cleansing, which is usually after the 18th or 20th day, there may be made for those that desire it, a very strong astringent Lotion, to fortifie and settle those parts, which have been much relaxed, as well by the great extenſion they received, as by the humours with which they have been so long time soaked. This Remedy may be composed with an Ounce and an half of *Pomegranate* Peel, an Ounce of *Cypress* Nuts, half an Ounce of Acorns, an Ounce of *Terra Sigillata*, a Handful of *Provence-Roses*, and two drachms of *Rock-Allum*: all which being infused a whole night in five half Pints of strong red Wine, or (that it may not be too sharp) a quantity of Smiths water mixed with that Wine; afterwards boil it well to a Quart, then strain it, squeezing of it strongly, and with this Decoction foment those inferiour parts Nights and Mornings, to the end they may as much as possible be strengthened and confirmed: I say as much as possible; because there is no probability that they can ever be reduced to the same estate they were in before she had Children. So much for this: Wee'l now pass to convenient Remedies for the Belly of a new-laid Woman.

All Authors do appoint, immediatly after Delivery, the skin of a black-Sheep flaid alive, for this purpose, to be laid all over her Belly, and to lie on four or five Hours; others will have a Hare-skin. Truly I believe that by reason of the natural heat of such Skins, the remedy is not bad: but I also fear

left in some small time after it may do the Woman more hurt than good, and that by its Moistness, cooling of her, it may make her to shake, which would be very prejudicial in stopping her Cleansings, which ought to flow; besides it is a remedy of too much trouble; for there must always be a Butcher ready for every Woman that is laid, or some other person that can do it as readily, who must be for this purpose in the very Chamber, or at least in the House, that so they may have the Skin very hot according to directions.

They likewise direct a small Plaister of *Galbanum*, with a little Civet in the middle, to be applied to the Womans Navil, which as they imagine is very proper to keep the Womb in its place, because being delighted with that smell, it drawes neer to it of its self, but this remedy is a little * Superstitious: wherefore I am not for it, it being sufficient to keep the Belly very warm, in the situation we have directed, and prevent the least cold.

** Practice and success commends it, nor is there reason wanting to defend it; wherefore notwithstanding the Authors sense, it may be successfully continued.*

As for Swaths convenient to a Woman new laid, they need not be us'd the first day, or at least but very loosely, especially when there hath been a hard Labour; because the least compression of the Womans Belly, which is then very sore, as the Womb also is, having been much harrassed, proves a great inconvenience to her, wherefore let her not be swathed until the Second day, and that very gently at the beginning. Midwives believe that they serve instead

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stead of Boulster; as well for the keeping the Womb up in its place, as to squeeze out from all parts the Cleanings which are necessary to be evacuated : And Nursekeepers, abused with this belief, do sometimes swath their Bellies so strait, that they do bruise the Womb, which is very painful in the beginning of Child-bed, and from whence often follows very dangerous Inflammations.

These Swaths and Boulsters can have no hold to support the Womb as they imagine, ** Bottom of the Womb.* forasmuch as its ** Fund*, which is the principal part, being sitting in the Cavity of the *† Hypogaster*, cannot be kept stable and firm by that which is applied upon the Belly, and beside the interposition of the Bladder which is upon it, will not permit it.

As to their opinion that such Swathings help to cleanse the Womb, 'tis fit they should be disabused of this Error ; for it is not the same thing in these Cleanings, as pressing the juice out of boil'd meat in a Napkin, for these are wholly a work of Nature, which a strong compression (instead of helping) hinders, by the pain it causes to the Womb, and the Inflammations that follow. Without dwelling then upon the ordinary manner of Swathing, let us be guided according to the dictates of Reason, and not according to the Nurse-keepers naughty Customs, whose Method is first to put upon the Belly a Swath four or five double, of a triangular Figure, to support (as they pretend) the Womb, and sometimes two others Roulers very strait, on each side towards the Groine, to keep it in its place, lest it be shaken, and encline more to one side than
t'other,

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mother, with yet another broad square Swath for the whole Belly, which they put upon the first, afterwards they make a Swath of a Napkin folded two or three double, of the breadth of a quarter of an Ell, with which they do very much girt and compress the Belly.

I do very well approve of the use of these Swaths, and of a good large square Boulster over the whole Belly, provided they be very loose the first seven or eight daies, only to keep it a little steady, observing in the mean time to take it off, and remove it often, to anoint the Womans Belly all over (if it be sore, and that she have After-Pains) with Oile of sweet Almonds and S^r Johns Wort mixed together, which may be done every day: But after that time, they may by degrees begin to swath her straighter, to contract and gather together the parts, which were greatly extended during her going with Child, which may be then very safely done; because the Womb by those former cleansings is so diminished and lessened, that it cannot be too much compressed by the Swaths. Let us now see what is fit to be done to the Breasts.

Proper Remedies may be applied to them, for to drive back the Milk, if the Woman will not be a Nurse, of which we shall speak hereafter; but if she intends to be a Nurse, 'twill be sufficient to keep her Breasts very close, and well covered with gentle and soft Clothes, for to keep them warm, lest the Milk curdle in them; and if there be danger of too much Blood being carried thither, anoint the Breasts with Oile of Roses, and a little Vinegar beat together, and put upon them some fine Linnen dipt in it, observing that if the Woman do

do suckle her Child, she gives it not the Breast the same day she is brought to Bed, because then all her Humours are extremely moved with the Pains and agitation of the Labour; wherefore let her defer it at least till next day, and it would be yet better to stay four or five days, or longer, to the end the fury of the Milk and the abundance of humours, which flow to the Breasts in the beginning, may be spent, in which time another Woman may give it suck. Let us now discourse of a fit Diet for the Woman to keep, during her whole Child-bed.

CHAP. III.

What Diet a Woman in Child-bed ought to observe during the whole time of her lying-in, when it is accompanied with no ill accident.

ALthough a Woman be naturally delivered, yet notwithstanding she must observe a good Diet, to prevent many ill accidents, which may happen to her during her Child-bed; at the beginning of which she must be directed in her Meat and Drink, almost as if she had a Fever, that so it may be prevented, inasmuch as she is then very subject to it; so likewise it often happens to her by the least neglect committed towards her in her tending.

For this Reason one must not be of the opinion

of many Nurse-keepers, who will have a new-laid Woman to be well fed, as well to restore her lost strength, by the tediousness of the Labour, and by the quantity of Blood then evacuating, for which cause they believe the Woman must be well nourished to make more Blood, as also to fill up her Belly, which is very much emptied by the Birth of the Child: but it is much better to follow in this the counsel which *Hippocrates* gives us in his Tenth Aphorism of the Second Book, where he saies, *Impura corpora quo plus nurriveris, eo magis lase-
ru*; The more you nourish impure Bodies, the more you hurt them. Now it is certain that a Woman newly delivered is of this sort, as you may know by the quantity of Cleansings and Superfluities which flow from her Womb at this time, when for this reason they must be very regular in their Diet, especially the three or four first daies, in which time she must be nourished only with good Broaths, new laid Eggs, and Jellies, without using at the beginning more solid Meats; but when the great abundance of her Milk is a little past, she may with more safety eat a little Broath at her Dinner, or a small piece of boil'd Chicken, or Mutton, as she likes best; afterwards, if no accident happens, they may by degrees nourish her more plentifully, provided in the mean time, that it be a third part less than she was accustomed to take in her perfect Health, and that her Food be of good and easie digestion; not suffering her to eat any of those Cakes, Tarts, or other Pastries, which are usually provided at the Childs Baptism. As for her Drink, let it be *Prysan*, [which is *Liquorish*, *Figs* and *Aniseeds* boiled in Water] or at least boil'd Water,

Water, being careful not to give it her too cold; she may also (provided she be not Feaverish) drink a little white Wine, well mixed with Water, but not till after the first Five or Six days.

Although I prescribe this Rule in general for all those who are newly brought to Bed; yet there are some who must not observe it so exactly as laborious Women, who being of a very strong and robust constitution, require a more plentiful feeding, to whom notwithstanding, if they do not change the quality, they must at least retrench the quantity of their ordinary food, having alwaies respect to what every person accustom themselves to, which the same *Hippocrates* doth likewise teach us in the 17th Aphorism of the first Book, where he saith, *Animadvertendi sunt quibus semel aut bis, & quibus copiosior aut parvior aut per partes Cibus est offerendus, dandum verò aliquid tempori, regioni, ætati, & consuetudini.* "Great care and notice must be taken to whom to give meat once only or twice; "as also to whom to give more, or to whom less, "or by little and little; but some allowance must "be made in respect of Time, Countrey, Age and "Custom. What we have already said shall suffice for direction in their Meat and Drink.

The Child-bed Woman must likewise keep her self very quiet in her Bed, lying on her Back, with her Head a little raised, and not turning often from side to side, that so the *Matrix* may be the better settled in its first Scituation: she must free her self at that time from all care of business, leaving it to the management of some of her Kindred or Friends; let her talk as little as may be, and that with a low voice, and let no ill news be brought

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to her, which may affect her; because all these things do cause so great a commotion or perturbation of her Humours, that Nature not being able to overcome them, cannot make the necessary evacuation of them, which hath been the death of many.

The Citizens Wives have a very ill Custom, which they would do very well to refrain, that is, they cause their Children to be baptized the second or third day after their Labour; at which time all their Relations and Friends have a Collation in the Child-bed Room, with whom she is obliged to discourse, and make answers to the Gossips and all Comers a whole After-noon together, with the usual Complements of those Ceremonies, enough to distract her; and though there is scarce any of the Company which do not drink her Health, yet by the noise they make in her Ears, she loses it: besides all this, she is often constrained, out of respect, to forbear the use of her Bed-pan and other necessities, which are very prejudicial to her: and this happens just at the time when she ought to have most rest; because about the third day the Milk flows in greatest quantity to the Breasts; this is the reason why ordinarily the next day they have a very great fever. She ought alwaies to keep her Body open with Clysters, taking one once in two daies, which not only evacuate the gross Excrements, but also by drawing downwards cause her to cleanse the better. When she hath observed this Rule a fortnight or three weeks, which is very near the time of having cleansed sufficiently, that those parts may be thoroughly cleansed before she goes abroad, and
begins

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begins upon a New score; let her take a gentle Purge made of *Senna*, *Cassia*, Syrup of *Succory* with *Rhubarb*, which is good to purge the Stomach and Bowels of those ill Humours, Nature could not evacuate by the Womb, as it did the other Superfluities; this Purge may be repeated if necessary, all which being done, and that no indisposition remain, she may bath once or twice, or to wash and cleanse her Body; and afterwards she may govern her self according to her former Custome.

CHAP. IV.

How to drive back the Milk in those Women who are not willing to give suck.

THere are many Remedies used to this purpose, some of which hinder the afflux of humours to the Breast, and others dissipate and in part dissolve the Milk therein contained.

Those which hinder the Humours from plentifully flowing thither, are Oile of Roses well mixt with Vinegar, with which the Breasts are to be anointed all over; or *Unguentum Populeum*, with *Ceratum refrigerans Galeni*, equally mixt and extended upon a piece of Linnen, or gray Paper, and so applyed to the Breasts. Others use Linnen dipped in luke-warm Verjuce, in which a little Allom is dissolved, that so it may be more Astringent; and others lay to them the Lees of Red Wine alone, or mixt with Oyl of Roses.

Those

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Those Remedies which dissolve and dissipate the Milk from the Breast is a *Cataplasme* of the four * Branns, Honey and * *Of Linseed* Saffron, boiled with the Decoction *Fennegreek*, of Chervil or Sage. *Beans, and*

Others apply Honey only, and *Fitches.* some others rub the Breast alone with Honey, and put upon it the Leaves of Red-Cabbage, the great Stalks first being taken away, and they a little deadned before the fire; this remedy doth very readily drive away the Milk.

There are some which boil *Sage* and *Box* Leaves in Urine, with which they do toment the Breasts pretty warm, and lay a Cloth upon them dipped in it. But great care must be taken in the application and change of these things, that the Woman catch not the least cold, as also that no Inflammation or Impostumation be caused, instead of driving back the Milk: Wherefore such Remedies are to be chosen as are restraining, repercussive, or resolving, according to the different dispositions required.

I know some Women who hold it for a very great secret, and most certain and fit to drive the Milk effectually back; and that is to put on her Husbands shirt yet warm, immediately after he hath taken it off, and wear it until the Milk be gone: but in case the Milk doth in the mean time vanish, 'tis superstitious to believe that this Shirt is the cause of it, and that it can produce such an effect; it happens rather, because all the humours of the Body of their own accord taking another course than to the Breasts, do not daily flow in so great abundance to them: Wherefore in the use of
all

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all these Remedies, the principal must not be forgotten, which is, to take care that they tend downwards, procuring to that purpose

* *Cleansings*, good and ample evacuation of the
* *Lochia*, which is much furthered by keeping the Belly open by Clysters provoking them, in doing whereof the Milk will soon diminish.

All that we have said in the former Chapters of this Third Book, is only to be observed when the new-laid Woman hath no manner of Indisposition, for in case that any happen, she must be governed in another manner; and according as the Accidents require, of which we intend now to treat in the following Chapters.

CHAP. V.

Of several Diseases and Symptoms which happen to a Woman new-laid, and first of Flooding.

WE have elsewhere mentioned the Flooding which precedes Labour, and shewed the only means to remedy it, which is to deliver the Woman as soon as possible; let us now see what is fit to be done to that which happens immediately, or in a little time after, proceeding from the late opening of the orifices of the Vessels of the Womb, by the loosening of the *Secundine* which cleaved to it; this Blood flowes then to much more abundantly

dantly, by how much it is subtiler and hotter, or by the agitation of a long and hard Labour, and besides when a Woman is Sanguine or Plethorick.

This Accident may often happen by a too sudden or violent pulling away of the After-Burthen, and sometimes from some part of it being left behind in the Womb, or else some false Conception; which then endeavouring to expel, it presses and forceth forth the Blood out of the Vessels newly opened, and sometimes a great Clod of Blood remaining in the bottom of the Womb will produce the same effect, which by reason of the distention it often causes, excites Pains like to those a Woman endures before Labour, and doth not cease tormenting her, until she hath voided it, and then she is at ease; but sometimes the Blood continuing still to flow, and remaining in the bottom of the Womb, becomes new Clods; which is the cause why the accident renews again as before, and continueth so by fits, in the intervals of which there comes away some Serosities of the Blood retained, which dissolves; and makes some persons, ignorant of the Art, to think that the Flux is stoppt, although it still continues flowing within, where it stops only by some blood so coagulated; but when this Clod comes away the Flooding begins again, pure Blood and in great abundance.

Flooding is a more dangerous Accident than any other which may happen to a Woman newly laid, and which dispatches her so soon, if it be in great quantity, that there is not often time to prevent it. Wherefore in this case convenient Remedies must be speedily applied, as well to stop it, as to turn it back from the places whence it flowes,

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To which purpose 'tis fir to consider what causeth this Flooding, and if it be a false Conception, piece of the Burthen, or clodded Blood remaining behind, all diligence must be used to fetch them away, or to cause a speedy expulsion of them; but if when nothing remains behind in the Womb, the Blood doth notwithstanding continue to flow, you must bleed the Woman in the Arm, not so much thereby to empty the fulness, as to make division; let her Body be laid equally flat, and not raised, that so the Blood may not be sent down to the lower parts; let her keep her self very quiet, without turning from side to side, that so the Humours may not be stirred, the upper part of her Belly must likewise not be swathed or boun-dered, for such straitness augments the evil; let her Chamber be kept a little cool, and let her not be too warm covered in her Bed, that so the flooding through Heat may not be continued. All the world forbids Clysters in this case, lest, as they say, the humours be drawn down in great abundance; but I have twice experimentally found the contrary, where great Floodings have been stoppt by Clysters, of which I will give you a particular account, that so it may be useful on the like occasion.

I was three years since called to a Woman, who was surprized with a very great Flooding immediately after the Midwife had delivered her, which she had done with too much violence, as the good Woman assured me; who told me, She felt a very great pain at the instant she pull'd away the After-birth, and that she perceived at the loosening of it a Crack: Now from the moment that she was delivered,

delivered, she lost for five or six daies continually, so great abundance of Blood, that I could scarce believe she could without dying, had I not seen it my self: during all this time they had to no purpose used all the means they could imagine to stop this accident, and because with it she complained of great pains in her Belly, they gave her *Anodine* and cooling Clysters, for fear lest giving her others more strong, the Flooding would be more and more excited: She had taken so four or five Clysters, which came away as they were given, without any Excrement; which seeing, and judging that assuredly some gross Excrements (being retained in the Intestines from before the time of her Labour, which could not be evacuated by these *Anodine* Clysters) did cause so great a Chollick, which she felt all over her Belly, which appeared puffed up; I caused her to take one common and one pretty strong Clyster, contrary however to the opinion of most persons, who not knowing the cause of the distemper, bade me have a care lest it should, as they said, cause a greater Flooding; but the issue of it was quite otherwise than they expected; for the good Woman voided with this Clyster a Pan full of gross Excrements, which having staid there a long time, and being thereby hardened, had stoppt the Passage of much Wind, which passed away at this time. Now the Intestines full of this gross matter, being every moment agitated by this Wind, did likewise agitate and continually compress the Womb, by means of which the Flooding was always maintained, which did cease immediatly after this Chollick was dissipated by the evacuation of these Excrements; and

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since that time being again called upon the like occasion of loss of Blood, proceeding from the same cause, and having taken the same course, the issue of it was likewise the same. Wherefore if there be the least appearance of Excrements contained in the Intestines, make no scruple to give Clysters to evacuate them, forbearing in this case those that are Astringent, because they harden and retain yet more that which augments the distemper.

But if notwithstanding all this the Blood flowes continually, then the last remedies must be tried, which is to lay the Woman upon fresh Straw, with a single Cloth upon it, and no Quilt, that so her Reins may not be heated, applying along her

Loins Clothes wet in cool

* *Vinegar and water.*

* *Oxyrate*, provided it be not in the Winter, for

then it must be a little warmed : by this refreshing, the impetuosity of the Blood will be a little stop'd, and the heat of it qualified, as also by this means, that little of it which remains in the Womans body shall be concentrated towards the principal part; and to the end her Strength may be preserved, which is extremely wasted by the evacuation of this treasure of Life, let her take every half hour a little good strong Broath, with a few Spoonfuls of Jelly, and between whiles the Yolk of a new-laid Egg, without giving her too much food at a time, because her Stomach cannot digest it; and let her drink be red Wine, with a little Water wherein Iron hath been quenched : but if notwithstanding all this the Blood continues flooding, then the Woman will have often Fainting-fits, and be in great danger of losing her life; because one cannot apply



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apply in those places the Remedies fit for to stop the opening of the Vessels as we can in another.

These three Figures represent several Pessaries fit for the supporting and keeping up of the Womb, that it may not fall out, as it doth in a bearing down.

CHAP. VI.

Of the bearing down, and falling out of the Womb and Fundament of a Woman new-laid.

I Shall, the better to explain the thing, make two sorts of Bearings down, or Relaxations, as also two sorts of Fallings forth, or Precipitations of the Womb; all which differ but in the degree, according as they fall down more or less: for the Relaxation is when the Womb only bears down and comes not forth; and the Precipitation is, when it comes out of the Body.

The first sort of Bearing down is that, in which the whole body of the Womb falls into the *Vagina*, in such manner, that putting up the Finger, one may feel the orifice very neer. The second sort of Bearing down is, when the Womb being yet lower, one can manifestly perceive this Orifice quite without.

The Falling-out is also of two sorts; in the first the Womb comes quite forth, but is not turned inside out, nor can the inside of it be seen, but

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only its Orifice, which appears at the end of a great fleshy mass, which makes the body of the Womb; and this is called *Prolapsus Uteri*, that is, A falling forth of the Womb. And the other falling out, of all is most dangerous, and is called *Perversio*, or turning inside out; for then it is not only fallen forth, but the bottom of it is turned quite out, that so you may perceive it all even, and without an Orifice; because it is so turned. The Womb turned on this fashion appears to be only a great piece of bloody flesh,

* *Amans Cod.* (and almost like the * *Scrotum*) which hangs between

the Womans Thighs; and that which is wonderful in this case is, that the Infants house, which is the Womb, goes forth at the Gate, which is the inner Orifice.

The Bearing down of the Womb proceeds either from a Relaxation or Ruption of the Ligaments. Women that have abundance of the *Whites*, are subject to these Relaxations, and the Ligaments are extended or broken by hard and violent Labour, as also by too frequent bearing of great and heavy Children, sometimes by a great Cough, by strong and frequent Sneezings, or having leaped or fallen from high places, by going in a Coach, Cart, on Horse-back, or in other rude and shaking Carriages; by having lifted up beyond their strength heavy burthens, by lifting up the Arms too much, and putting them over the Head; by a tedious looseness, with great Pains and Needing; forasmuch as all these things do shake and extremely thrust the Womb downwards when it is with Child, and the Ligaments being by this means loosened or broken cannot

cannot keep it up any longer, which is the cause that a bearing down doth easily follow the birth of a Child; but the most ordinary cause of these Bearings down, or fallings out of the Womb, is violent and hard Travails, which usually happens when a Child comes wrong, so that it cannot be born, and when it hath too big a Head, or when the inner Orifice is not dilated sufficiently for to give it passage at that time, for the Womb is then forced down with so much violence, and yet the Child cannot advance into the Passage, because the Ligaments are extremely rent or loosened, and likewise when the *Secondine* cleaving closely to the bottom of the Womb is pulled away of a sudden, or with too much violence, and much the sooner, if that putting up the Hand into it (as it is necessary when the String is broke) one takes hold and pulls the body of the Womb it self, instead of the After-birth. We have, in the 13th Chap. of the *Second Book*, given such directions as will prevent this mistake, and bring it away safely.

A Woman troubled with this falling out of the Womb feels a great weight at the bottom of her Belly, with an extreme pain in her Reins and Loins towards the place where these Ligaments are fastened, and a reddish bloody moisture is perceived to pass through this mass of Flesh which hangs between her Legs. A Relaxation may happen to all sorts of Women from any of the causes above mentioned; but a falling out but seldom, and a perfect Perversion never but upon a Delivery, or immediatly after; because then the inner Orifice is almost as wide as the bottom of it, which is not so at other times, when being closed, there is no pos-

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sibility for it to be thus turned inside out. I have shown in the 16th Chap. of the *Second Book*, how to prevent this Accident at the time of Labour in a Woman that is subject to it; to which place you may have recourse to avoid repetition.

If a speedy remedy be applied to the Relaxation and falling out of the Womb, by reducing and remitting it into its natural place, a Cure may be easily expected; and so much the rather, by how much the Woman is young, and the Malady fresh: but if she be old, and this Disease be already of a long standing, she is so much the more incurable.

For the Cure of this distemper regard must be had to two things; the First is, to reduce the Womb into its natural place, and the Second is to strengthen it, and keep it there.

For the execution of the first, which is to reduce it, if the Womb be quite out, or turned, the Woman must first of all be made to render her Urine, and a Clyster must be given her, if it be necessary, for to empty the gross Excrements that are in the *Rectum*, that so the reduction may be the easier performed; then place her on her Back, with her Hips raised a little higher than her Head, and then foment all that is fallen forth with a little Wine and Water luke-warm, and having taken a soft Rag, put it up into its proper place, thrusting it back, not all at once, but wagging it by little and little from side to side; and in case this be too painful, because it is already too big, and swelled, anoint it with Oile of sweet Almonds, for the more easie reduction of it, being careful assoon as it is reduced, to wipe off the Oile as much as may be, to avoid

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avoid a Relapse. But if notwithstanding all this the Womb cannot be put up, because it is very much enflamed and tumefied, which happens when it hath been a long time so, without the use of necessary means, during which time it is continually moistened with Urine and other Excrements, which contribute very much to its corruption; in this case there is great danger that it will gangrene, and be afterwards the death of the Woman. There have however some Women escaped this accident; *Pareus* recites the History of such an one, which *Roussel* doth also amongst his *Cæsarean*-births; but this happens very rarely.

As to the second part of this Cure which consists in the retention of the Womb in its place, and the strengthening of it so reduced, it will be done by a convenient scituation. Let the Woman for this purpose keep her self in Bed on her back, having her Hips a little raised, her Legs something crossed, and her Thighs joined together, to prevent the falling of it out again; but the best way is to put up a Pessary into the Neck of the Womb, for to keep it firm. There are two or three sorts made for this purpose, the several Figures of which are at the beginning of this Chapter. Some are round and a little longish, of the figure of an Egg, and of the length and bigness of the Neck of the Womb, where it must be left after that it is introduced into it; but these are often subject to fall out again, and are not so useful and convenient as the other, which are made of a piece of Cork, that they may be light. They ought to be of a thick circular figure, like to a small wreath, and pierced with a pretty big hole in the middle, which serves
as we

aswel for the lodging, supporting and receiving of the inner orifice of the Womb, as for the giving passage to the superfluous humours, which are thence evacuated. These kind of Pessaries must be covered with white Wax, that they may be more smooth and incapable of hurting the Woman that useth them: they must be pretty large, that they may be the easier kept when they are put up: they may also have a small String fastened to them, to pull them out at any time to clean: But this String is not so very necessary, because they may be easily enough taken out with one Finger: they may be made some of them exactly round, and others something of a square Figure or triangular: the corners must be rounded or blunted. These sometimes hold better, and fall not so easily forth as the round; but either the one or the other may be used, as shall be thought most fit.

During the flowing of the *Lochia* from the Womb, nothing els must be used to strengthen, but only to keep it so in its natural place; for astringent Remedies proper for the prevention of the Relaxation of it will very much prejudice the Woman, by stopping of these evacuations; and above all it must be observed in this distemper, that the Womans Belly be not strait swathed any more than for a stay only, in which many Midwives are deceived, believing they keep it the better in its place by how much they swath the Belly the straiter, for by this strong compression of it they force the Womb yet more down. She must use the Bedpan in Bed, & lying along if possible when she goes to Stool, keeping her hand all the while on the bottom of her Belly, to bear it up. But when the time of her

her Purgations is fully over, and that she hath cleansed very well, astringent Injections may be then used without danger; respect must likewise be had to the whole habit of the Body, to dry up the humours by an universal course; and the Woman must not rise out of her Bed in at least five or six Weeks time, that so the Womb and its Ligaments may be restored and fortified in their natural Scituation.

It happens also sometimes that by the great Throwes the Woman endures at her Labour, the Fundament falls quite out; in this case, if the Child be very forward in the Passage, 'twill be sufficient before this accident happens to hinder it if possible, persuading the Woman not to help her Throwes so strongly; but if it be already fallen down, they must stay till the Child be born ere it can be put up; for before that it will be difficult to do without much bruising the Intestine. As soon then as the Woman is delivered, let it be reduced in the same manner as that of the Womb, after having fomented, bathed and anointed it, if necessary, forbearing afterwards during her Child-bed the giving of her Clysters, because the force she useth in rendring of them, will again cause the falling down of the Fundament.

CHAP. VII.

*Of the bruises and rents of the outward parts
of the Womb caused by Labour.*

IT is no wonder that often, and especially in first Labours, there happens bruises and rents in the lower parts of a Woman; the cause of which is easily known, if the bigness of the Childs Head be but considered, which must needs make a great distention of those strait parts, by passing and coming forth of the Womb; which parts, being thereby extremely pressed against the hardness of the bones that surround it, are easily bruised, and when they are not able to be sufficiently dilated, they must necessarily be torn asunder.

Almost all Women in their first Labours do very much complain when the Child is in the Passage, that the Midwives prick and scratch those parts, and do believe that the hurts and bruises which are there, after Labour, do happen because the Midwives handled them too roughly; but they are very much mistaken, for this comes because the Childs Head in passing makes a violent distention and separation of the four Caruncles and other adjacent parts which are bruised, and sometimes rent by it; from hence spring the pains of which they then complain, as if they were pricked and scratched, whereof they are never after sensible in their following Labours, because those parts having once given way to an Infant, are ever after very easily

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easily relaxed and extended, and every Travail with less Pain than other.

These contusions and rents must never be neglected, lest they degenerate into malignant Ulcers; for the Heat and Moisture of these parts, besides the filth which continually flows thence, doth easily contribute towards it. if convenient Remedies be not timely applyed: Wherefore as soon as a Woman is laid, if there be only simple Contusions and Excoriations, apply the Cataplasme formerly directed to those lower parts to ease pain, made of the Yolks and Whites of new-laid Eggs and Oyl of Roses seeth'd a little over warm Embers, continually stirring it till it be equally mixt, and then spread upon fine Cloth; it must be applyed very warm to the bearing-place for five or six hours; when, being taken away, lay some fine Rags dipt in Oyl of *S^t Johns-wort* on each side the bearing-place, and renewing them twice or thrice a day, foment these parts with Barley Water and Honey of Roses, to cleanse them from the Excrements which pass; and when the Woman makes Water, let them be defended with fine Rags, to hinder the Urine from causing smarting and pain by touching them.

Sometimes the Bruises are so great, that the Bearing-place is inflamed, and a very considerable Abscess follows, which I have met with; in which case it must be opened just below the swelling, in the most convenient place; and after the matter is evacuated, a *Detensive* Injection must be injected into the Cavity, with the same Fomentation above-mentioned; viz. Barley-water and Oyl of Roses, which may be a little heightened with Spirit of Wine, if there be any danger of Corruption, and afterwards

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afterwards the Ulcer must be dressed according to Art.

But sometimes it happens by an unlucky and deplorable accident, that the *Perinæum* is rent, so that the Privy and Fundament is all in one; if it were so let alone without reunion, the Woman afterwards happening to be with Child would indeed be delivered with more ease, and without danger of suffering the same again, as is usual when healed after such an accident; but likewise if it remains in this manner, 'tis so great an inconvenience, that her Ordure comes both waies. Wherefore having cleansed the Womb, from such Excrements as may be there, with red-Wine, let it be strongly stitched together with three or four stitches or more, according to the length of the separation, and taking at each stitch good hold of the flesh, that so it may not break out, and then dress it with an agglutinative Balm, such as is *Linimentum Arcei*, or the like, clapping a Plaister on, and some linnen above it, to prevent as much as may be the falling of the Urine and other Excrements upon it; because their acrimony would make it smart, and put it to pain: and, that these parts may close together with more ease, let the Woman keep her Thighs close together, without the least spreading, until the cure be perfected. But if afterwards she happen to be with Child, she will be obliged, to prevent the like mischief, to anoint those parts with emollient Oyls and Ointments; and when she is in Labour, she must forbear helping her Throws too strongly at once, but leave Nature to perform it by degrees, together with the help of a Midwife well instructed in her Art, who being warned by the first disgrace,

will

will do her best to avoid a second; for usually when these parts have been once rent, it is very difficult to prevent the like in the following Travail; because the Scar there made doth straighten the parts yet more; wherefore it were to be wished for greater security against the like accident, that the Woman should have no more Children.

Now if by neglecting such a rent, the Lips of it be cicatriced, and that Cure be desired, you must with a good pair of Scissers cut off those Scars in the same manner as is done in a Hare-lip, and it must afterwards be dress'd accordingly, or as if it newly happened.

CHAP. VIII.

Of after-Pains which happen to a Woman new-laid, and of their several causes.

THe most common accident that usually troubles most Women during their lying in, is after-Pains.

We have formerly shewed how they are accustomed to be prevented in giving the Woman immediately after she is laid two Ounces of Oyl of sweet Almonds, drawn without fire, with as much Syrup of *Maiden-hair*; but since notwithstanding this Remedy the Woman is much pained in her Belly, let us enquire what may be the cause of all these gripes, which are usually called without distinction After-pains, and are sometimes felt about the Reins, Loins, and Groins, sometimes in the Womb.

Womb only, and sometimes about the Navel and all over the Belly, either continually, or by fits with some remission, in a certain place, or sometimes on one side and sometimes on another; all which reflections teach exactly their several causes, and accordingly the Remedies must be varied.

The Pains of the Belly for the most part proceed from one only of these four causes, or several of them together; the first is by Wind contained in the Bowels, by which they are easily filled after Labour, as well because they have more room to dilate then when the Child was in the Womb, by which they were compressed, as also because the nourishment and matter contained as well in them as in the Stomach, have been so confused and agitated from side to side, during the pains of Labour, by the frequent Throws which alwaies much compress the Belly, that they could not be well digested, whence this wind is afterwards generated, and consequently the Gripes which the Woman feels running in her Belly from side to side, according as the Wind moves more or less, and sometimes also towards the Womb, because of the compression and commotion which the Bowels make, being extremely thereby agitated.

The Second Cause of these Gripes which torments the Woman as much as the former, is that which proceeds from some strange body resting in the Womb after Labour, which it endeavors to expel by continual Throws, and it is sometimes a false Conception, or a piece of the Burthen, and very often clodded Blood which cause this torment, and never cease til what is so contained in the Womb be come
away,

away, these Pains are very like the same that a Woman endures before she is delivered, and are not abated by Clysters, as these are that proceed from Wind; but on the contrary are rather thereby excited and augmented.

Thirdly, These Pains are often caused by the sudden suppression of the *Lochia*, which abundantly filling the whole substance of the Womb, causeth a great distention, and by its long stay an inflammation, which is communicated by means of the *Peritonium* to all the parts of the lower Belly, by reason whereof it swells, and is extended, and grows extremely hard, which accident continuing, very often kills the Woman in a short time after.

The Fourth and last cause of these Pains, is the great extension of the Ligaments of the Womb, by reason of a hard Labour; here they remain more fixt about the Reins, Loins and Groins than any other part; because they are the places where these Ligaments are fastened, however these Pains do sometimes communicate themselves by continuity to the whole Womb, and the rather when it hath been bruised by a violent Labour.

It is commonly held, that a Woman is not troubled with these Pains so much of her first Child, as of the following; but daily experience confirms us, that it happens indifferently, according as the present and various dispositions contribute to it, either more or less, there being no certain rule in respect either to first or last Labours.

All these Pains must be cured according to their several causes, and to prevent those which we say are excited by wind, give the Woman immediately

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after Delivery, Oyl of sweet Almonds, and Syrup of Marsh-mallows mix together; some do more esteem Oyl of Walnuts; provided it may be made of good Nuts; but this hath a worse taste than the other. This remedy serves to lenify and line the inside of the Intestines with aunctuosity, by means whereof that which is contained within them passes away the easier; but, as we have said elsewhere, this mixture is so saporous, that it doth often for that reason prove more than good; wherefore I prefer a good warm Bath for those who have an aversion to the Oyl. Others give half a glass of good Hippocras, but this in the condition the Woman is in may do more hurt, by causing a Fever. Now for the better preventing these kind of Pains, let the Woman keep her Belly very hot, and be careful not to drink her Drink too cold; and if they torment her very much, hot Clothes from time to time must be laid on her Belly, or a Pan-cake fryed with Walnut-oil may be applied to it, without swathing her Belly too strait. And for the better evacuating the wind out of the Intestines, give her a Clyster, which may be repeated as often as necessarily requires: but if by this means the pains of the Belly are not appeased, 'tis certain they are maintained by some other cause, and therefore may be held. If it be known that some strange body is retained in the Womb, the expulsion of it may be procured, or it must be fetcht away, by putting the Finger into the Entry of it, according to the direction already given for the extracting of a false Conception; and if it be great Clots which (retained) do also cause these pains, they will not fail to cease as soon as they are fetcht away; but also the same accident will

will soon return, if new Blood flowes into the cavity of the Womb, and coagulates there again, as it often happens; for it cannot endure to keep any thing in its capacity after the Childs birth.

If the Womans Cleanings be suddenly stoppt, which a little before came down in great abundance, you need not search for any other cause of the pains she endures; and the speediest remedy is to bring them down, which is effected by Clysters that draw downwards, by hot and aperitive Fomentations to the bearing place, and by bleeding in the Foot, preceded by that of the Arm, if the case require it.

As to the Pains the Woman feels in her Loins and Groins, which come by reason of the great distention, or in part ruption of the Ligaments of the Womb thereabouts fastened, rest alone, and a good situation of the body, will be sufficient to fortifie and reunite them without greater Medicines, because they cannot be actually applied to the part affected, alwaies observing a good Diet; and not forgetting, in all these several sorts of pains, to provide for the natural evacuation of the *Lochia*, for 'tis one of the principal means to obtain a good issue.

CHAP.

will soon return, if new Blood flows into the cavity of the Womb, and coagulates there again, as it often does, and it cannot endure to be so long without its capacity after the Childs birth.

If the Womens Ovaries be suddenly stopp'd, which a little while in pregnancy

to be sure you need not teach for any other cause of

Of the Lochia which flow from the Womb in Child-bed. Whence they come, and the Signs when they are good or bad.

I Do not find that Authors have sufficiently enquired into the cause of the *Lochia* which are evacuated in Child-bed, as to make us truly understand what they are, either in respect of their Nature, affirming it to be the blood usually purged away every Moneth before they were with Child, which being collected about the Womb, flows away when it opens after the birth of the Child; or in respect of the quantity of this evacuation, and the length of time it ought to continue. *Hippocrates* in his Book; *De Natura Pueri*, would have at the beginning an *Hemine* and an half a day; of which measure, though common in his time, we have no certain knowledg; for some will have it to be our half Pint, others a Pint or thereabouts, and that they continue for a Male child thirty daies, for a Female fourty, diminishing every day by little and little, until there comes no more, and the evacuation is compleated. *Galen* saies that these *Lochia* are only vicious humours, and the residue & superfluity of the Blood with which the Child was nourished in the Mothers Womb. But I will, as near

as I can, here describe to you the manner how I conceive this evacuation to be made, and the reason why they diminish day by day, and change their colour, consistence and quality according to the several times.

As soon as the Child is born, there flowes away from the Womb, at the same moment, some watrish humours, besides those which came away before at the breaking of the Membranes. These Waters then are very often bloody, not that they are so by Nature, but because there is for the most part Blood mixed with them, which comming from the Vessels of the Womb, because of the agitation and commotion they received in the Birth, become so reddish; but immediatly after the Burthen is complearely loosened, then pure blood flows away; and the reason why these *Lochia* flow freely and are very red the first day, is, because the Vessels against which the Burthen was fastened in the Womb are but newly opened; but the Blood flowing by little and little in less abundance, because the greatest plenitude hath been at first evacuated, doth clod in small drops on the extremitie; of all those Vessels whereby they are stop'd, and then there comes away onely the most *serose* part of it; and therefore the *Lochia* begin the second and third day to be more pale and less coloured, and after that the colour of them is less bloody every day, as the Vessels close, until they are at length very pale; which happens when the Vessels being almost perfectly reunited, there distills only the meer moisture of them, as also of the whole substance of the Womb, through which a quantity of it doth

likewise transude. Now these *Serise* Humidities acquire by the heat of these places a consistence somewhat thick, and that more or less, according as they come away in greater or lesser quantity, and according to the length of time they stay there. And then the *Lochia* do almost resemble, in colour and consistence, troubled Milk, which makes the World believe it is Breast Milk which is in that manner emptied downwards; but in truth it is an Abuse as great as common.

For my part I know no other cause of this ordinary change of the colour and consistence of the *Lochia*, nor of the diminution of their quantity, than that which we daily find in the Suppuration of a great wound somewhat incarnated: for as soon as the wound is first made, it bleeds fresh, and in good large quantity, because the Vessels are then open; but a little after, during the first and second daies, it yields only bloody Serosities; forasmuch as some small portions of the Blood being clodded about the mouths of the Vessels do in part stop

them, and afterwards stopping them
** Mater.* more, it yields a white ** Pus*, which proceeding from the moisture, sweats through the substance of the flesh, and of these Vessels which have been but newly closed, acquires a thick and whitish consistence by the heat of the part, and the stay it makes there. Now the better to conceive this by a comparison, you must imagine that there is a kind of a wound made by the loosening of the Burthen from the Womb, by reason of which there happens, if it may be so said, a kind of Suppuration, the *Pus*, and excretions of which are the *Lochia*.

They

They which believe that, when the *Lochia* appears, it is the Milk of the Breasts which flows by the Womb, judge so, because the Milk usually abates in proportion to this evacuation, and say besides, that by the Colour and Consistency it must needs be Milk: but if they were acquainted with Anatomy, they would know, that there was no passage which hath to this purpose a communication from the Breasts to the Womb, unless they think it is done by the means of this

imaginary * *Anastomosis* of the † *Mamillary* Veins with the * *Epigastrick*; which cannot possibly be, because

neither of them have any tendency either to the Breasts

or the Womb, as Anatomy makes manifest; for the *Ma-*

millar comes from the *Sub-*

clavicular under the *Sternum* without yielding

any *sera* to the Breasts, nor so much as touching them, and the *Epigastrick* ariseth from the *Ilacks*,

without having the least communication with the

Womb.

Laurentius, who knew very well it was for this

reason impossible Milk should pass from the Breasts

to the Womb by this passage, finds out another

way, which is as far from the truth as the first,

His opinion (as he saith) is that the Milk and Blood flow back from the Veins of the *Thorax*, which

begeth the Breast to the *Axillary* Veins, and from thence to the Trunk of the *Vena-cava*, by the continuity of which they flow down into the *Hypoga-*

strick Branch, and from thence finally into the

Womb;

Womb: but besides, that it would be very difficult for the Milk, after so long a way to come forth, without being perfectly mixed with Blood; the Circulation of the Blood, which he knew not, shewes us plainly that it is impossible, because it doth mount back by the lower parts of the Body from the *Vena cava* to the Heart, without a possibility of carrying any thing into the Womb; whence it appears that he is as far as others from informing us how it can be done.

For my part I believe with much more reason, and I think that it is not Breast milk which is thus evacuated by the *Lactia*, but this abundance and superfluous humidity which distills from and transudes the Vessels and substance of the Womb, as I have explained, by means of which the whole habit of body being much emptied, there remains not sufficient to be carried to the Breasts, and little or none flowing to them; that which is contained in them is dissipated by transpiration, and digested by the natural heat of the parts: Now the Milk by this evacuation is dried up, just as we see a Pond is that one would drain, out of which it is not absolutely necessary to let the water run which fills it, but it sufficeth to turn back the stream that feeds it to another place, which being done, and no more new water falling into the Pond, it will soon be dried up; as well because the water is dissipated in Vapours, as drunk in by the Earth which contains it. And for the same reason when we see Milchnurses want their ordinary courses, it is because that all the redundant humours in their body being sent to the Breasts, and emptied by the sucking of the Infant, there remains no superfluities for matter

matter for the Terms: and for this cause it is not necessary that the Menstrual blood should be carried from the Womb to the Breast, for Nurses Milk to be made of it; but it is enough that the humours flow towards them, without going at all to the Womb; so likewise it is not necessary the Breast Milk should be sent to the Womb, to be evacuated with the *Lochia*, it being sufficient that the humours are drawn towards it without going to the Breasts.

We must not think, as some imagine, that the Blood flowing after Labour is bad and corrupted, and the reliques of that good which the Infant hath taken for his Nourishment, nor that it hath remained in and about those places during the whole time of being with Child; for this Blood coming immediatly out of the Vessels, opened by the separation of the Burthen from the Womb, is the very same with all the rest of the body, in which immediatly after Labour no great change is observed, unless it be by so much alteration as the disposition of the place from whence it proceeds may cause, and according as it flows abundantly or slowly, and as it is mixt with other impurities which are emptied at that time, or that it makes some stay in the Womb after it is out of the Vessels: and if it had so staid in and about the Womb, as some would have it, without Circulation during the whole time of Pregnancy, 'tis most certain it would have putrified; even as we see the water of a Lake, for want of Agitation and Motion is infected and corrupted; but there is no other superfluity nor relique of the Childs nourishment, but the gross blood with which the whole mass of the *Secondine* is replenished.

plenished. After having considered the nature and quality of these evacuations, we say that for their quantity and time of continuance there is no certain and particular Rule; for some Women have many a long time, and others but few and of short continuance, which usually happens according to the Season, Country and Age, according to the Temperament more or less Hot, or Moist, the Habit more or less replete, and according to the Vessels remaining a long or a short time open. But in general this Evacuation is for the most part finished in fifteen or twenty days, and sooner or later according to the circumstances lately mentioned, and indifferently the same to a Woman delivered of a Boy or a Girl; during which time the *Lochia* diminish in quantity from day to day, until they totally cease at the end of the same; afterwards the parts remain yet somewhat moist, without any manifest evacuation, except in Women subject to the *Whites*.

This discourse must be understood of Labour at full time; for after a Mischance, the less the *Fetus* is, and the less time the Woman is gone with Child, the less ordinarily are her Evacuations.

The Signs when the *Lochia* are good and commendable, are, that they be fresh the three or four first days, and that they lose this bloody tincture by degrees, and become pale, that they be of an equal consistence without any curdled or clotted Blood, that they have no ill Scent, that they be without Acrimony, and that they flow in a moderate quantity.

We say that they must not be fresh but the four first days, because they will not be else the true

Lochia,

Lechia, but a pure flux of Blood, which will be very dangerous; and that they must lose by degrees this reddish colour to become pale; this sign sheweth us, that the Vessels which have been opened are by degrees closed again; that they be of an equal consistence without curdled or clodded blood: by this means we are assured that there is no mixture of any strange matter, and that they are governed and regulated by Nature, they must have no Fætor, or ill scent, and be without Acrimony; in this case we know that there is no danger of corruption or inflammation in the Womb; they must flow in a moderate quantity, that so the superfluous humours may be evacuated: for if the Lechia flow in so great an abundance as to cause fainting or Convulsions, the Woman will be in danger of death, as Hippocrates in the six and fiftieth Aphorism of his Fifth Book assures us; *Si Mulieri profusio convulsio & animi defectus superveniant male est*: "If, saies he, Fainings and Convulsions follow the Lechia, it is dangerous: and he adds in the following Aphorism; *Menstruus abundantior Marbi eveniunt, & subsistentibus accidunt ab utero Marbi*: "If the Courses or Lechia flow too much, Diseases follow, and if they stop, Diseases happen from the Womb.

Diseases proceeding from too great abundance of the Lechia are, as we have said in the first Aphorism, Convulsions and Syncope, or Faintings; and if they do not kill the Woman, they weaken her very much; she grows lean, she remains a long time pale, her Legs and Thighs swell, and afterwards she becomes Hydropick.

As to the distempers which follow the suppression

tion of the *Lochia*, we will mention them in the next Chapter.

CHAP. X.

Of the suppression of the Lochia, and the Accidents which follow thereupon.

THere is so great a flux of Humours from all parts to the Womb, when a Woman is with Child, and during the commotion in her Labour, that in case there be not afterwards sufficient evacuation of them, the Woman is in great danger of very ill Accidents, and sometimes of death it self; because these humours, corrupting by their stay there, will certainly cause a great inflammation; and this is the reason why the suppression of the *Lochia* is one of the worst and most dangerous Symptoms which can befall a Woman after Delivery, especially if they happen to be totally and suddenly stoppt, the first three or four days, which is the time when they should come down plentifully; for then follows an acute Fever, great pains in the Head, pains in the Breast, Reins, and Loins, suffocation of the Mother, and an Inflammation which is suddenly communicated all over the lower Belly, which becomes very much swelled and blown up; there happens also a great difficulty of Breathing, Choakings, Palpitations of the Heart, Syncope and Faintness, Convulsions, and often Death if the suppression continue; or if the Woman escapes it, she is in danger of an Abscess in the

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the Womb; yes, and afterwards a Cancer: or there may happen great Imposthumes in the lower Belly, which is usual, because of the nearness of the place; as also Gouts, Sciaticas and Lameness, or Inflammation or Abscess in the Breast, if the Humours be carried towards those parts.

The Causes of the Stoppage of the *Lachia* proceed either from a great Looseness, because a great Evacuation that way, turns the *Lachia*, and makes them stop; or any strong Passions of the Mind, as great Fear, or Grief, or any Anger, or Soundings, for these things do cause the humours to retire suddenly inwards, and by this quick motion they often cause Suffocations. Great Cold stops the *Lachia*, because it closes the Vessels and Pores of the Womb: the use of astringent Remedies produces the same effect, as also cold Drink; because by condensing and thickning the humours, they hinder their easy flowing; strong and frequent agitations of the Body, by rarifying and dispersing them throughout every part, doth likewise not permit them to be evacuated by the Womb.

To bring the *Lachia* well down, let the Woman avoid all perturbations of spirit which may stop them; let her lye in Bed with her Head and Breast a little raised, keeping her self very quiet, that so the Humours may be the easier carried downwards by their natural tendency; let her observe a good Diet, somewhat hot and moist; let her rather use boiled Meats than roast: and if she be any thing feaverish, let her use Broaths only with a little Jelly; let her avoid all binding things; let her *Pisshan* be made with Aperitives, such as are the Roots of *Succory*, *Dogs-grass* and *Asparagus* with a

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little *Aniseed* and *Hops*, and every other time let her take a little Syrup of *Maiden-hair* in a glass of this *Pysan*; and above all let her carefully shun cold Drink: Clysters may likewise be given her to draw the Humours downwards; and her lower parts may be fomented with an *emulsion* and *aperitive* Decoction made with *Mallows*, *Marsh-mallows*, *Pellitory* of the wall, *Camomil*, *Melilot*, the roots of *Asparagus* and *Linsard*; with which Decoction the Wome may likewise be injected; and with the Herbs, being well boiled and strained through a very coarse Cloth, let a *Cataplasme* be made with the addition of Oyl of *Lilies*, or Hog's-grease, and applyed very hot to the lower Belly: together with these let her Thighs and Legs be strongly rub'd downwards, bathing them very hot with the same *Emulsion* Decoction; there may likewise be applyed large Cupping-glasses to the uppermost part of the inside of her Thighs. It would not be much amiss to use an *Aromatick* Perfume, if it were not that it caused a heaviness of the Head, as *Hippocrates* notes in the 28th *Aphorism* of the Fifth Book, where he saith: *Suffraganea aromatica mulieribus eductis sepius videntur ad alia milia esse, nisi Caput induruerit gravitatem*. In oyl her head is made good.

Now whilst all these things are put in practice, bleeding in the Foot or Arm must not be forgot, according as the accidents caused by this suppression of the *Lochia* require: neither must we blindly follow the opinion of many Women, who believe that bleeding in the Arm in this case is very pernicious.

This Imagination is so firmly rooted in the heads of almost all of them, that if in case a Child-

bed

bed Woman happens to dye after bleeding in the Arm, they fail not absolutely to condemn that as the cause: But this their opinion is not according to knowledge, for sometimes Bleeding in the Arm is better than in the Foot: and at other times that in the Foot is more certain than bleeding in the Arm: As for example, suppose a Woman be very full of Humours throughout the whole habit of her Body, and her *Lochia* be suppress'd, by reason of which there happens an Inflammation in her Womb, and besides a great Fever and difficulty of Breathing, as it ordinarily arrives in these Cases.

'Tis most certain that if she were immediately blooded in the Foot, being very Plethorick as we have suppos'd, there would be so great abundance of Humours drawn down into the Womb, that the Inflammation would be thereby much augmented, and consequently all the Accidents of the Distemper; but 'twould be much better in this case rather to alter the Habit, first by bleeding in the Arm, and afterwards the most pressing Accident being partly diminished, it will be very much to the purpose to bleed in the Foot: for by this means Nature (which was almost overcome under the burthen of these redundant humours) being eased of some part of them, doth the more easily command and govern the rest: but on the other side, if there be a stoppage without the appearance of a great plenitude in the Body, and without any notable accident, Bleeding in the Foot, if it be desired, may be then presently put in practice. However I think it most convenient that it should * alwaies be preceded with bleeding in one of the Arms.

* Not necessary, except for reasons abovementioned.

CHAP. XI.

Of the Inflammation which happens to the Womb after Delivery.

VERY often the stopping of the *Lochia*, (of which we have lately discoursed, and especially at the beginning of Child-bed) doth cause an inflammation to the Womb, which is a very dangerous Disease, and the death of most of the Women to whom it happens.

It is also very often caused from some hurt or bruise of the Womb by any Blow or Fall, and especially for having been too rudely handled in a hard and violent Labour, or by the falling out of the Womb after Labour; or else because of some false Conception, or other strange Body remaining behind in it, which corrupts there; and likewise because it might have been too much compressed in the beginning of the Labour by the great Swathes and Napkins wherewith the Midwives and Nurse-keepers usually swathe the Belly of a new-laid Woman, to keep it (as they say) in its place: which happens also very often when the Blood being stirred and over-heated by the agitation of a rude Travail, is carried thither in too great abundance, and there stays without evacuation.

An Inflammation of the Womb may be known by being much more swelled after Labour than is requisite, and when the Woman feels a very great heaviness in the bottom of her Belly, and that it

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is swelled and blown up almost as big as before Delivery; if she have a difficulty in making Water and going to Stool; or that she perceives her pain augment when she is voiding her Excrements, because the Womb presses the right Gut upon which it is placed, and to which by its proximity it communicates the Inflammation, as well as to the Bladder; she hath then also, besides a great Fever with a very great difficulty of Breathing, a Hiccough, Vomiting, Convulsions, and in the end Death, if the Disease be not soon cured. A Woman that hath received a bruise or any violent compression of the Womb, is in great danger, that after the Inflammation, if she do not die of it, an Abscess will be there made, or that there will remain some Strumous Tumour, and it may be an incurable Cancer, which will make her lead a miserable and languishing life the rest of her daies.

Wherefore as soon as an Inflammation is perceived, the Cure of it must be endeavour'd, by tempering the heat of the humours, and turning and emptying the superfluities of them as soon as may be, first extracting or procuring the expulsion of such strange things as may remain in the Womb after Labour, according to the directions given in its proper place, and above all treating her at this time with very great tenderness, using not the least violence, for fear the evil may be thereby augmented.

The Humours may be tempered by a cooling Diet, using food that nourishes little, wherefore let her be contented with only Broath for her nourishment made of Veal or Puller, but not too strong of the Flesh, together with cooling Herbs, such as

Y

Lettice,

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Leticee, Purslane, Succory, Borrage, Sorrel and the like; let her abstain from Wine, and drink *Pysan* made of the roots of *Succory*, and *Dogs-grass*, *Barley*, and *Liquorish*; let her keep her self very quiet in her bed; let her not be swathed too strait, and let her body be kept open with simple *Anodine* Clysters; because if there be any Acrimony in the humours, they will cause Throwes, which extremely pains the inflamed Womb; and amongst all the passions of her mind let her especially avoid Anger.

The redundancy of Humours may be evacuated and diverted by Bleeding, which at first must be in the Arm, and not in the Foot, for the reasons given in the foregoing Chapter, reiterating it without loss of much time, for the accident is very pressing, until that the greatest part of the plenitude be a little evacuated, and the Inflammation something diminished, and then bleeding in the Foot will not be amiss, if the case require it.

It may be convenient to anoint the Belly with *Unguentum refrigerans Galeni*, or Oyl of Roses, or Oyl of sweet Almonds mixt with a little Vinegar. Injections may likewise be given into the Womb, provided they be not Restricting, lest making a greater stoppage of the *Lochia*, which alwaies flow a little in this case, the distemper be not augmented; for which reason let temperate Medicines be only used, without any manner of astriction, as Barley water with Oyle of Violets, or luke-warm Milk.

Sometimes an Inflammation of the Womb converts into an Aposthume, which yeilds a great quantity of matter; there is then much danger of corruption in that part, as well by reason of its Heat

Heat and Moisture, which are the principals of it as because no proper Remedies can be applied, or easily kept to it; since therefore nothing else can be done, we must be contented with an universal *Regimen* and *Deterfus* Injections to cleanse off the matter, that so the corruption be not augmented by its long stay there, which may be effected by a Decoction of *Barley* and *Agrimony* mixt with Oyle of *Roses* and Syrup of *Wormwood*, and heightened with some Spirit of *Wine*, if there be a great putrefaction. But if the *Imposthume* turnes to an ulcero-
 ous *Cancer*, then, notwithstanding the use of any Remedies whatsoever, this mischeivous disease will endure till death; wherefore we must be contented with *Palliative* Medicines, a good Diet: and in this follow the precept of *Hippocrates* in the 38th *Aphorism* of his *Eighth Book*; *Quibus detecti Canceri sunt, non curare melius: curati enim citius intereunt, non curati vero longius vitam trahunt.* "It is better, saies he, not to take an occult
 "and hidden *Cancer* in hand, for it hastens the
 "death of the Patient, and they which let it alone
 "live longer. Now he means by an occult *Cancer*, that which breeds within the Body, and especially that in the *Womb*.

X

CHAP.

CHAP. XII.

Of the Inflammation of the Breasts of the new-delivered Woman.

UNtil of late it was alwaies believed that the Blood was the matter whereof the Milk was made in the Breasts; but it is much more probable that the Chyle only, and not the Blood, is destined to this generation, as well as it is the true matter out of which all the Blood of the Body is made. That which easily makes us judge so, is the new discovery of the Channell of the Thorax, which conveys the Chyle into the Subclavian Vein, found out by Monsieur Pecquet, Physician of the Faculty of Montpellier, to whom all posterity will be eternally indebted, for having means hereby of being disabused of several notable Errors, which for want of so fair and necessary a knowledge was hid and entertained into the Practice of Physick until this time. However since the Vessels which may for this purpose convey part of this Chyle to the Breasts are not yet manifestly known, we will content our selves to explain after the following manner the cause of the Inflammation of the Breasts, which doth very often happen to Women newly delivered.

All the Blood and Humours are so heated and agitated during Travail, by the Pains and Throws of Labour, that the Breasts composed of glandulous and spongyous bodies, easily receiving in too great

great abundance of these Humours, which flow to them from all parts, are soon inflamed thereby; because this Repulsion doth very sensibly and painfully distend them: to this contributes very much the suppression of the *Lactae*, and an universal fullness of the Body. This Inflammation may likewise happen by the Womans having been too sorely lacerated by some blow received upon the Breasts; or for having lain upon them, which easily bruise them, as also for want of having given Milk to the Child in as much as by this means the Milk which is in great quantity in the Breasts not being evacuated, is overheated and corrupts by too long stay there. But from whatsoever cause this Inflammation of the Breasts in a Woman new-laid may proceed, convenient Remedies must be speedily applied, lest it afterwards apostumates; or else that not suppurating, there remains a *Ginrhau* hardness, which in time may degenerate into a Cancer, a very pernicious Malady, and for the most part incurable when confirmed. Besides the danger that an Inflammation of the Breasts may be converted into these dangerous distempers, there happens usually to the Woman in those parts, which are very sensible, an extreme pain, which often causeth shaking fits, and afterwards a Fever, with so great a burning of the whole Body, that she can scarce endure any Cloaths upon her; and when she doth never so little uncover her self, or put her Arms out of the Bed, she hath new shaking fits, which afterwards augment the heat of her Fever: it is no great wonder that a Fever soon happens upon this occasion, because the Breasts by their nearness to the Heart do easily communicate their Inflama-

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tion, which sometimes excite Fury and Phrenzy, if the Blood be suddenly and in great abundance carried thither; as *Hippocrates* assures us in the 40th Aphorism of his 5th Book; *Quibuscumque Mulieribus ad Mammas sanguis colligitur, furor esse significat.* "If (saies he) the blood be carried to, "and in great abundance collected in the Breasts, "it signifies that Fury and Phrenzy will follow.

Now the principal and most certain means to hinder the afflux of so great a quantity of Humours to the Breasts, and prevent the coming of an Inflammation there, is to procure a good and ample evacuation of the *Lactia* by the Womb. Wherefore if they are suppress'd, they must be provoked by the means elsewhere directed, for by this evacuation all the Humours will take their course towards the lower parts. The whole habit of Body may be emptied by bleeding in the Arm; afterwards for a greater diversion, and the better to bring down the *Lactia*, bleed in the Foot; during which, *Topical Remedies* to the Breast must not be forgot, as in the beginning, to chafe well into them Oile of Roses and Vinegar beat together, laying upon them afterwards *Unguentum refrigerans Galeni*, and a third part of *Populion* mixt with it; or a *Cataplasme* made of the *Setlings* found in a Cutlers Grin-stone-Trough, Oile of Roses and a little Vinegar mixt together: if the pain continue very great, another *Cataplasme* may be made of the Crum of white Bread, and Milk mixt with Oile of Roses, and the Yolks of raw Eggs, upon all these may be laid Compresses dip't in Vinegar and Water, or in *Plantane Water*; but great care must be taken that these Remedies applied to the Breast be only cooling

cooling and repressing, without any great Affliction, for it may cause a *scirrhus* tumor, which would remain a long time, and it may be a worse distemper.

After the height of the Inflammation shall be past, and the greatest part of the antecedent Humours evacuated and turned aside, let Medicines a little resolving be used, to digest, resolve and consume the Milk which abounds in the Breasts, to prevent corruption by its stay; wherefore let them be drawn by the Child, or some other person, or else resolved, unless that it be suppurated: It may be resolved by the application of pure Honey to the Breasts, which in this case is very effectual, or else a red *Cabbidge* leaf may be anointed with it, and applyed to the Breasts, having first withered it a little before the Fire, and all the hard Stalks and Veins taken out: do not lace the Breasts too strait, nor apply any course or rough Clothes to them, that they may not be therewith scratched and bruised. A very good remedy for the same is, a whole red Cabbage boiled in River water to a Pap, and then well bruised in a wooden or marble Mortar, and pulp'd through a Sieve, which mixt with Oyle of *Camomil* may be applied as a *Paulis* to the Breasts,

In the use of all these means, let the Woman observe a cooling Diet, not very nourishing, that too much Blood and Humours may not be engendered, of which there is already too great a quantity; she must alwaies keep her Body open, that the Humours may be so much the more carried downwards, and consequently turned from the Breasts. During the whole time the Inflammation continues,

let her keep her Bed, lying on her back, that she may have the more ease; for being raised, the Breasts which are gross and heavy, because of the abundance of humours, with which they are impregnated, do very much pain her, when they hang down; let her stir her Arms as little as may be; and after the fourteenth or fifteenth day of her Child-bed, when she hath sufficiently cleansed, and the Inflammation is abated, and she no longer Feversish, purge her once or twice, as the case shall require, to empty the ill humours which remain in the whole habit of her Body. If, notwithstanding all these Remedies, the swelling of the Breast doth not go down, and that she still feels sore pain, and a great Pulsation, with a hardness more in one place than another, it is certain it will aposthumate there, of which we will treat hereafter.

CHAP. XIII.

Of the Curdling and Clodding of the Milk.

IN the beginning of Child-bed the Womans Milk is not well purified, because of the great commotion her Body suffered during Labour, and it is then mixt with many other Humours: now if they are then conveyed to the Breasts in too great abundance, they cause an Inflammation treated in the foregoing Chapter; but when the Infant hath already suckt fifteen or twenty days or more, the Milk then only without this mixture of humours is contained

contained there, and sometimes curdles and clods; And then the Breasts, which before were soft and even, become hard, uneven and rugged, without any redness; and the distinction and separation of all the Kernels fill'd with curdled Milk, may easily be perceived. The Woman finds a great pain there; and cannot milk them as before; she finds a shivering, especially about the middle of her Back, which seems to her like Ice. This Shivering is usually followed by a Fever of four and twenty Hours continuance; and sometimes less, if the clodding of the Milk do not turn to an Inflammation of the Breasts, which will undoubtedly happen, if it be not emptied, or dissipated and resolved.

This Clodding of the Milk for the most part proceeds, because the Breasts are not fully drawn; either for that she hath too much Milk, or the Infant is too small and weak to suck all, or because she doth not desire to be a Nurse; for the Milk in these cases remaining in the Breasts, after concoction, without being drawn, loseth the Sweetness and B benignity it had, and by means of the Heat that it there acquires, and the too long stay it there makes, sowing, it curdles and clods; just as we see *Rennet* put into ordinary Milk, turneth it into Curds; this accident may likewise happen from having taken a great Cold, or keeping the Breasts not well covered.

From whatsoever cause this Curdling proceeds, the readiest and most certain Remedy is, speedily to draw the Breasts, until they are emptied and dried; but because the Infant being weak and small cannot draw strong enough, by reason the Woman

is not soft milch: when the Milk is so curdled, let another Woman draw them, until the Milk comes freely, and then she may give the Child suck: and to the end she may not afterwards breed more Milk than the Child can draw, let her use Diet that gives but little nourishment, and keep her body alwaies open. But when it happenst hat the Woman neither can nor will be a Nurse, 'tis necessary to use other means for the curing of this distemper: Then her Breasts must not be drawn; for attracting more humours, the disease will ever recur if they be not again emptied. Wherefore 'tis necessary to prevent the coming of any more Milk into them, and to resolve and dissipate that which is there: for this purpose the plenitude of the Body must be emptied by bleeding in the Arm; and besides this evacuation, let the Humours be drawn down by strong Clysters, and bleeding in the Foot, purging also if it be necessary; and to resolve, digest and dissipate the curdled Milk, apply the *Cataplasme* which we said was proper, as that of pure Honey; or that of the four Brans boiled in a Decoction of *Sage, Milk, Smallage* and *Fennel*, mixing with it Oile of *Camomil*, with which Oile the Breasts may likewise be well anointed.

I have sometimes seen Women apply to their Breasts, with no small success, the Linnen covers of Salt-butter-pots; it is a drying Remedy, and fit to soak up the moisture of these parts, and may be used; provided the Remedies before mentioned have dissolv'd the Milk: but if notwithstanding all this it cannot be dissipated nor resolved, there is great danger by its long stay there, that it will cause an Inflammation of the Breasts;

If it so happen, it may be remedied according to the directions of the foregoing Chapter: Let us now treat of Aposthumes of the Breasts, which often follow their inflammation.

CHAP. XIV.

Of Aposthumes of the Breasts of a Woman new-laid.

THere may at all times happen to Maids as well as Wives Aposthumes of the Breasts, either hot or cold, the cure of which doth not differ, as faith *Guido*; except that too strong Repercussives must not be used, because of their nearness to the Heart, and that the retention of the Courses, contributes much to the breeding of them, and their provocation to their Cure, as also bleeding in the *Saphena*: but our intencion is only to treat of those which happen to a new-laid Woman, and ordinarily succeeds an Inflammation of the Breasts, caused by corruption of the Milk, and too great abundance of Blood and Humours conveyed thither.

After all possible endeavours have been used to cause this Inflammation to cease, whether by universal evacuation of the Body, as well by bleeding in the Arm and Foot, as the provocation of the *Lachia*, or also by Medicines restraining, repelling, or simply dissolving applyed to the Breasts; if the Woman still suffers great pain there, and hath

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strong Pulsation more in one place than another where a hardness of a livid colour may also be perceived, and soft in the middle, 'tis a sign that they will aposthumate. Then the application of all the former Topicks must be forborn, and ripening Medicines applyed; it being much better to make a perfect Suppuration, than longer to use Repellers or Resolvers, lest the matter be more confirmed, in driving back and only resolving the more subtil parts, leaving the thicker behind in the Breasts, which will become *scirrhou*, and be very difficult to dissipate, or by its long continuance, as it often happens, may turn to a Cancer.

To suppurate the Aposthumes, put an emollient and ripening Poultis upon the Breasts, such as that made of *Mallows* and *Marshmallows* with their Roots, *Lilly-roots*, and *Lisard* bruised, boiled to a Pap; that it may be pulp'd through a Sieve, that so no hardness may be left to hurt the Breasts, which are then in great pain; afterwards mix a good quantity of Hog's grease or *Basilicon* with it, and lay a little Cloath, thick spread with the same *Basilicon* upon the place where it is likely to break, and the Poultis all over it, renewing it twelve hours after, or the next best next day, continuing this Remedy till the Aposthum be fully ripe. It is much better to use this Cataplasme or the like, than Plaisters; for a Poultis doeth better by its softness, and is more equally applyed to the Breasts; it mollifies it also, and keeps it much more supple; besides it is easier changed and cleared than Plaisters, which by their sticking do very much incommode these parts.

Assoon

As soon as the Aposthume is ripe, it must be opened, if it open not of it self. The time when it is fit, may be known, by the ceasing of the beating the Woman felt before in her Breasts, and that the pain and Fever is much diminished; and then besides, the middle of the Aposthume is a little elevated to a point and very soft, and the contained matter may by the Finger be perceived to fluctuate.

When these Signs shall appear, the Aposthume must be opened in the fittest place, to give issue to this matter; being careful not to do it too soon, and before the matter is fully ripe, because of too much pain: for the Breasts are very sensible parts, and easily receive a Defluxion, because of their thin and spongy substance, interlaced with an infinite number of Vessels. Wherefore it must be permitted to ripen, yet not suffered to stagnate there too long. This apertion may be made with a Lancet, or with a grain of potential *Cannery*, making it large enough to evacuate such Clods, as are there usually met with: but it is best to use the Lancet, because there is no loss of substance, and the Scar is not so deformed, as that which succeeds the application of a *Cannery*.

Guido would have this Incision made in the form of an Half-moon, to follow the round Figure of the Breast; but it is no matter of what fashion it is, provided it be in a place convenient for the emptying the matter, and that care be taken that some great Vessels be not opened, the principal of which are towards the Armpits. After that all the matter and putrified clotted Milk there found be emptied, the Aposthume after the usual manner must

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must be cleansed and mundified, observing not to make the Tents too long nor too hard, but only very soft pledgits of Lint, without thrusting them too deep in, fastening a Thread to the first, if there be occasion, the better to draw it out, because these Aposthumes ordinarily are hollow. If there be much pain dip the Boulsters in Oile of Eggs, or *Basilicon* mixt with a Digestive, if there remain any thing yet to Suppurate ; afterwards use Deterfives and Mundifiers, as Honey of Roses, or *Unguentum Apostolorum*, according as the case requires, laying upon it a good Plaister de *Mucilagimibus*, to soften that hardness which may yet remain.

Sometimes the Breasts do not Aposthumate only in one place, but often each of their principal Kernells comes to Suppuration, and makes so many Aposthumes, so that they break sometimes in five or six places, all yeelding matter ; in this case you need not lay open every of these small Holes, but it will be sufficient to make one or two in the most depending part ; for all the matter (which hath an easy communication within from one part to another, because the Breasts are spongius) will soon be emptied, and the making of one or two large Orifices in a commodious place, will quickly dry up all the rest : But the certainest Remedy to cure an Imposthume of the Breasts after the matter is emptied, and to prevent the Orifices for being too long time fistulous, is quite to drive back the Milk, according as we have taught in its place, not only of the aposthumated Breast, but of both, though both be not effected, because there alwaies remains communication ; by this means the Ulcers will be much



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much sooner and easier dried up, and for this cause the Womans body must be kept open by Clysters, if she goeth not to Stool naturally, and she must be now and then purged, to evacuate the Humours, and drive them downwards, using also a slender Dier.

CHAP. XV.

Of Excoriation, and loss of the Nipples.

VERY often Women that are Nurses, and especially the first time, are subject to have their Nipples, which are endued with an exquisite sense, (because that many small nervous Filaments do there terminate) chopped and excoriated; which is very painful to them, and insupportable, when notwithstanding this indisposition they give suck to their Children, and so much the more, by how much they are hard milch't, as it happens the first time, the Milk not yet having made way through the small Holes of the Nipples, which are not yet thoroughly opened, and then the Child takes more pains to suck, than when the Breasts do almost run of themselves; and sometimes these Chops and Excoriations do so encrease by the Childs continual sucking, that in the end it takes the Nipple quite off from the Breasts, and the Woman is no longer capable of giving suck, and there remains sometimes an Ulcer very hard to be cured.

This may sometimes happen from Childrens being so dry and hungry, that they have not patience

to suck softly, and finding the Milk not speedily to follow as they desire, they do bite and mump the Nipple so strongly (thinking to draw Milk down the better,) whether they have Teeth or no, that they become raw, and in *fine* still continuing it, they are quite taken away, as we have said. It happens also that other Infants have their Mouths so hot, that they make the Nipples sore, as when

the Children have those little Ulcers, called * *Apthe*, and much sooner if they have the Pox, with which also they may infect the Nurses, and then those Ulcers so caused do not easily yield to ordinary Remedies, but on the contrary grow daily worse and worse.

These Chops and Excoriations must not be neglected, as well by reason of the great pain they put the Woman to, when she gives suck, as to avoid their dayly growing worse and worse; and at length their turning to malignant Ulcers: Wherefore as soon as they begin, let the Woman forbear giving her Child suck, until they are quite cured; for with continual sucking it will be very difficult to hinder its return by irritating of them, during which the Milk must for a small time be kept back; lest by being no longer drawn, it cause an Inflammation in the Breast through its great abundance. However if but one Nipple be sore, she may give suck with the other: to these sore Nipples *Desiccative* Medicines may be applyed, as Allum, or Lime-water; or they may be only bathed with *Plantain* water, putting upon them small soft Rags dipped in any of them; or use a small *Ceruse* Plaister, or some Ointment, as *Dia Pompholygos*, or a little powder of

Amylon; but especially care must be taken, that nothing be applyed to disgust the Child, wherefore many content themselves to use only honey of Roses.

Some will instead of *Desiccatives* use *Emollients*, but there must be a distinction, for *Emollients* are fit to preserve from such *Fissures*; but when they are already made, *Desiccatives* are best: and to prevent the Woman from hurts in these parts, which are very painful, and that the Rags may not stick to them, one ought to put upon them a little Wax, or Wooden Caps, or Leaden ones, they being more *Desiccative*, like to those represented in the beginning of the Chapter, which must have several small holes on the tops of them, as well to give issue to the *Sanies*, which proceeds from the small Ulcers, as that the Milk, which often distills out of the Nipples, may by this means pass away.

If the Child hath wholly suck'd off the Nipples, the Milk must then be quite dried away, that so the Ulcers which remain may be the sooner healed, for else one shall hardly obtain their end; and in time they may become *callous* and malignant: and if the Child hath the Pox, it will be very difficult to heal those Ulcers of the Nurses Nipples; if it continues to suck: wherefore the Child must be put to another, who must use Preservatives against this Malady; but if they be only small simple Ulcers in the Mouth, without any malignity, 'tis enough to wash them with Barley-water, mixt with a little Juice of Citrons; and the better to temper these Humours, which are over-heated, let the Nurse take a cooling Diet, that her Milk may become of

the same temperament, and let her be blooded and purged, if it be necessary.

When the Nipples are quite lost, it is very difficult to give a Child longer suck; because it can take no hold to suck the Milk, and also the small holes of the Nipples are closed up by the Ulcers. But if notwithstanding she shall desire to give suck, another Woman must by degrees make her new Nipples, after the Ulcer shall be perfectly healed, whose sucking with her mouth will draw them out, and by this means unstop the root of the old Nipples; or using a fit Instrument of glass, such as is figured at the beginning of this Chapter, with which the Woman her self, may also suck them five or six times a day; and to shape them, and so preserve them, being thus drawn out, from sinking into the Breasts again, let her put upon them a small Cap of wood, or other matter, such as is abovementioned, and doing so by degrees after the Nipples are quite form'd and unstop'd, she may again give her Child suck.

What we have hitherto writ in this third Book shall suffice for directions concerning a new-laid Woman, and also for the knowledg and cure of distempers which usually happen to them, upon which we need not further enlarge, for if any other happen than what we have mentioned, and which do not properly belong to the care of a Chirurgion, a Physitian must be sent for, to remedie them by his prudence, and according as Art requires. Let us now treat of Infants new-born, and run through the Diseases they are most subject to.

CHAP. XVI.

Of tending Children new-born, and first how to bind, cut, and swath the Navel-string.

IF the Infant (as we have said before discoursing of Deliveries) hath often need whilst he is in his Mothers belly, of the good conduct and dexterity of a Chirurgion, or Midwife, to deliver him and bring him happily forth out of that Dungeon, wherein he hath been a long time inclosed, their assistance is nothing less necessary to him as soon as he is born, as well to remedy such indispositions which sometimes he brings into the world, as to defend him from many infirmities, to which the weakness of his Age and tenderness of his Body renders him subject. We have in the whole foregoing-Book very particularly shewn how to help him in his coming into the world, there remains now only directions what is to be done afterwards, to this purpose we will first shew how to tye, cut and bind up the Navel-string.

There are some persons who as soon as the Infant is come into the World, do bind and cut the Navel-string, before the burthen be come away; but it is better, if possible without too long stay, to defer it until the Secundine be likewise drawn forth; for the Womb, which is extremely wide and open after the coming forth of the Child, would be in danger of taking cold by the outward aire, during the delay made for the Ligature of the Umbilical

Vessel; besides that the Orifice closing a little, it would afterwards be more difficult to bring the After-birth away.

To make this Ligature as it behooveth, let the Midwife do as followeth; as soon then as all is come away from the Woman, she must immediately close up the Womb with clouts, according to directions already given, and then carry away the Child and Burthen to the fire; having put it into a warm Bed and Blancker, let her take a brown Thread four or five double, of a quarter of an Ell long or thereabouts, tyed with a single knot at each of the ends, to prevent their entangling, and with this thread so accommodated (which the Midwife must have in a readines before Labour, as also a good pair of Scissers, that so no time may be lost) let her tye the string within an Inch of the Belly, with a double knot, and turning about the ends of the thread, let her tye two more on the other side of the string, reiterating it again, if it be necessary for greater surety; then let her cut off the Navel-string another Inch below the Ligature, towards the After-birth, so that there only remain but two inches of the string, in the midst of which will be the knot we speak of, which must be so strait knit, as not to suffer a drop of blood to squeez out of the Vessels, but not so strait as to cut it in two.

For which reason the Thread must be pretty thick and pretty strait knit; it being better too-strait than too-loose; for some Children have miserably lost their lives with all their blood before it was discovered; because the Navel-string was not well tyed. Now that so great a Mischief may not happen, great care must be taken after it is cut, that no blood

squeez through; for if there do, new knots must be made with the rest of the string, (which for this reason must be left a little long) to close it more exactly; this being done, wrap up the end of the String thus cut and tyed three or four times about with a small rag, drie, or dipt in Oile of Roses, if you please; then having put another small Rag three or four double upon the Belly of the Child aboye the Navil, lay the String so wrapp'd up upon it, that it may not touch the naked Belly; on the top of all put another small Boulster, and then swathe it with a linnen Swath four Fingers broad to keep it steady, lest by rowling too much, or by being continually Rirr'd from side to side, by the motion of the Belly, it comes to fall off, before the Vessels be quite closed up and healed.

'Tis very convenient, as we have said, to lay the remaining part of the String on the upper part of the Belly, that so, if by chance the Vessels be not sufficiently closed, the Blood may not so soon slide away, as if it were turned downwards; for we find sometimes this String to be so great in some Children, that although it were very close tyed at first, yet coming afterwards to wither and dry, the Ligature is rendred looser, by means of which 'twill afterwards easily bleed, if care be not taken. This Accident hapned lately to a poor Child, who died the twelfth day by such a flux of Blood, although the Midwife protested to me, that she had tyed the String very exactly; and being astonished how that could happen: she told me, that it must assuredly be, (which indeed was the truth) because the Knot was loosened in proportion to the withering of the String; wherefore to avoid such a Mis-

fortune, let a new Knot be knit the first time the Child is opened.

The String thus tyed begins daily to dry away, and is separated from the Belly at the end of the sixth or seventh day ordinarily, and sometimes sooner, but rarely longer than the eighth or ninth; it must alwaies fall off of it self without any provocation, lest that being separated too soon, and before the Vessels shall be entirely closed and healed up, a flux of Blood follow, which is very dangerous, as we have said, or that it cause an Ulcer very hard to be cured.

There are some good Gossips, who are a little superstitious in the tying of this String longer or shorter, according to the difference of the Sex, for some pleasant reasons they give, but it is a meer abuse; for at whatsoever distance they tye the Knot, either nearer or further, though half a foot from the Belly, yet it will alwaies be separated in the very same place, just close to the Belly, because it is a part which remains wholly

* *Without life.*

* inanimate, after the Child is come into the World; wherefore, whether Boies or Girles, let the Knot be made at least an inch from the Belly, as we have already directed; and not nearer, lest it pain or inflame the Childs Navel.

It will not be from the purpose to mention here a business of great consequence, which is sometimes capable to kill the new-born Babe, without almost knowing the cause of it; 'tis a very bad custome some Midwives have, before they make the Knot, they drive all the blood out of the String into the Infants Belly, believing that by this means they
fetch

fetch it to it self, and strengthen it when it is weak: but 'tis no such matter, for assoon as these Vessels are never so little cooled, the blood it contains quickly loses its spirits, and is half coagulated in an instant, which is the reason, that being driven back into the Infants Liver, it is enough to cause very great Accidents; not because of its abundance, but because having quite lost its natural heat, it is afterwards soon corrupted, and changeth and spoileth the Childs Blood, with which it comes to mix. They commonly put this ill custome in practice when the Child is weak; but this doth sooner suffocate them, for if they need Blood to give them vigour, it must be good and laudable, and not that which is half clodded, and destitute of its natural heat. Wherefore whether the Child be strong or weak, if you will not put it in danger of its life, or at least cause to him great oppressions, pains and gripes, forbear driving his blood thus out of the String into the Infants body. Now having thus tyed and cut the String, wash the Child presently all over, for to swaddle it afterwards, as we shall direct.

CHAP. XVII.

How a new-born Babe must be washed and cleansed from the Excrements, as also how it ought to be wrapped up in swaddling Cloaths.

WHen the Midwife hath ordered the Childs Navel-string, just as we have directed in the foregoing Chapter, let her presently cleanse it from the Excrements it brings with it into the world; of which some are within the body, as the Urine in the Bladder, and the *Mæconion* found in the Guts and others without, which are thick, whitish and viscus, proceeding from the slimyness of the Waters: there are Children sometimes so covered all over with this, that one would say, they were rubbed over with soft Cheese; and certain Women, of easie belief, do really imagine it was, because they had often eaten some while they were with Child, that their Infants are thus full of this thick white Excrement, which in colour and consistence is not unlike white Cheese.

Let the Child then be cleansed from all these Excrements with Wine and Water a little warmed, and every part of his body where this Excrement is; as principally the Head, because of the Hair, and the folds of the Groins, and Arm-pits, and the Cods; which parts must be gently cleansed with a soft Rag, or a soft Spung dipt in this luke-warm Wine. If this viscus Excrement stick so close, that
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it will not easily be wash'd off of these places, it may be fetcht off with Oile of sweet Almonds, or a little fresh Butter melted with the Wine, and afterwards well dried off; one must also cleanse and unstop with tents of fine Rags, wet in this liquor, the Ears and Nostrils; for the Eyes, they may be wiped with a soft dry rag, not dipt in this Wine, that it may not pain them and make them smart.

After the Child is thus washed and cleansed from these Impurities and Blood which comes away in the Labour, with which sometimes its whole Body is besmeared, all the parts of it must be visited, to see if there be any fault or dislocation, whether the Nose be straight, or its Tongue tyed, whether there be no bruise or tumor of the Head, or whether the Mould be not overshotten, or whether the *Scrotum*, in case it be a Male, be not blown up and swelled; in short, whether it suffered any violence in any part of its Body, and whether they be well and duely shaped, that so Remedies may be used according to the nature of the indisposition discovered. But as it is not sufficient to cleanse the outside of the Childs body; you must above all observe, that it must discharge the Excrements retained within: wherefore examine whether the Conduits of the Urine and Stool be opened, for some have been born without having them perforated, who have died for want of voiding their Excrements, because timely care was not taken of it: as to the Urine, all Children as well Males as Females, do render it as soon as they are born, especially when they feel the heat of the fire, and sometimes also the *Macion* of the Guts, but nevertheless usually a little after. If the Infant doth
not

not render it the first day, that it may not remain too long in his Belly, and cause very painful Gripes, put up into his fundament a small Suppository, to stir it up to be discharged; to this purpose a sugar'd Almond may be used, anointed over with a little boiled Honey, or else a small piece of *Cassile*-soap, rubb'd over with fresh Butter; you may also give the Child to this purpose at the Mouth a little Syrup of Roses, or Violets, mixt with some Oyl of Sweet Almonds drawn without fire, anointing the Belly also with the same Oyl or a little fresh Butter. It may be known when the Child hath voided all its *Meconion*, if the Stools change from black and become pale, which is about the *second* or *third* day, losing by degrees this tincture in proportion to the generation of new Excrements from the Milk, which about this time mixes with the first.

As to the *Meconion*, which is an Excrement in colour and consistence like to the Pulp of *Cassia*, found in the Childs Guts when it comes into the World, 'twill be enough to the purpose to examine what it is, and from whence it proceeds; wherefore without dwelling upon the different explications of Authors touching its generation, I will ingeniously give my thoughts of it; which is, that it comes from the superfluous Blood daily discharged, as it doth in all persons and of all ages, by means of the *Hepatick* channel, which coming from the bellow of the Liver, goeth and emptyeth into the Intestine *Duodenum*, out of which is formed the *Meconion*, which afterwards serves to keep the Intestines of the *Fœtus* open and dilated, that so they may the better perform their office after its birth; and

and to make it appear that it is truly thus made, and that the superfluous Blood is continually discharged by the *Hepatick* channel into the *Duodenum*, as I do say, there are some people of Four-score years of age, that were never let Blood, nor never lost any outwardly, who nevertheless do and have bred some every day, as must necessarily confest. Now if they did not void it this way, they must soon be suffocated by its too-great abundance. I know that many may answer me, that it is more credible that this discharge is made by the branches of the *Vena porta*, distributed throughout the *Mesentery*: but such as are acquainted with the Circulation of the Blood, know that naturally it cannot well be so, & I believe they would soon be of my opinion, if they did but well consider it; and it is not sufficient to refute me, by objecting, that if the superfluity of Blood be thus daily voided, one would alwaies have bloody Stooles; because it is not unknown that this portion of superfluous Blood, which is very small in comparison of the other Excrements proceeding from the Aliment with which it is mixt, doth easily there receive a change of colour, by the alteration and kind of concoction there made, whence it happens that it is not so easily perceived in a Man as a Child, in whom the *Mæconian* being yet without any mixture, retains more of the colour; as also because 'tis engendered of Blood only, which hath been separated as useless to its nourishment, and is after this manner expelled. Now forasmuch as there is but little superfluous Blood in an Infants body, whilest it is in the Womb, because it consumes a great deal of it for its nourishment and growth; besides that it hath
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been purified by the Mother, before it is conveyed to him; so likewise there is but little *Mæconium* engendred during the whole time of Prægnancy; for which reason also the Infant doth not void any during its stay in the Womb; but it doth when it is born, for then it receives nourishment by the Mouth, of which plenty of other Excrements are made, which forceth him to cast forth the first: and although the *Mæconium* hath continued in the Infants Guts, during the whole time it was in the Mother's Belly, nevertheless, which is very admirable, it hath nothing neer so ill a scent as the new Excrements have, which are engendred out of the nourishment taken in at the Mouth after it is born, although they make but a very small stay there, and are daily discharged.

As soon then as the Midwife hath washed and cleansed the Child according to directions, and that she hath viewed every part of its Body, let her begin to swaddle it in its Swathing-Cloaths, beginning first to cover the Head with
** This is the French fashion,* a small linnen Biggen, * putting a woollen Cap upon it, having first put upon the mould of the Head a fine Linnen rag, three or four double, and four Fingers broad; which that it may not stir, pin to the Biggen with a small Pin on the outside, that it may not prick the Child: this double Rag serves to defend the Childs Brain (which is not as yet covered over in this place with a Bone) as well from cold, as other injuries: Let her put small Rags behind the Ears, to dry up the flux which usually is there engendred; this done, let her put other rags, as well upon the Breast, as in the folds of the Arm-pits

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Arm-pits and Groyns, and so swathe it, having wrapped it up in beds and warm blankets. It is not necessary to give a particular direction how this ought to be done, because it is so common, that there is scarce a Woman but knowes it, but wee'll only say in general, that a Child must not be swathed too-strait in his Blankets, especially about the Breast and Stomach, that so he may breath the freelier, and not be forced to vomit up the Milk he sucks, because the Stomach cannot be sufficiently extended to contain it; and such a practice may possibly in time, converting this vomiting into an habit, prove a very great prejudice to the Child: Wherefore to avoid it, let his Arms and Legs be wrapped in his bed, and stretched strait out, and swathed to keep them so, viz. his Arms along his sides, and his Legs equally both together, with a little of the bed between them, that so they may not be galled by rubbing one another; after all this, the Head must be kept steady and strait, with a stay fastned on each side the Blancket, and then wrap the Child up in Mantles or Blankets to keep it warm. He must be thus swaddled to give his little body a strait Figure, which is most decent and convenient for a Man, and to accustom him to keep upon the Feet, for else he would go upon all four, as most other Animals do.

Besides all these Excrements mentioned, the Child hath yet a certain clammy Phlegme remaining in its Stomach, which he *pukes* up some few daies after he is born: to remedy this, you must give the Child a small Spoonful of sugared Wine, twice or thrice the first day together, making him to swallow it, and by no means give it suck until it
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be most part evacuated, or digested and consumed by the Stomach, for fear lest the Milk mixing with this viscous humour should corrupt, as it would do, if you gave it presently suck; some gives them for this purpose a little Oyl of sweet Almonds, drawn without fire, and a little Sugar-candy: The Jews are accustomed to give their Children a little Butter and Honey, which doth almost produce the same effect; and this they do to follow what is said in the 7th Chap. of *Isaiab*, the 14, and 15 Verses: *Behold, a Virgin shall conceive & bear a Son, and shall call his name Emanuel; Butter & Honey shall be eat, that he may know to refuse the Evil, and chuse the Good.* But Wine is much better, because it doth better cut and loosen this Phlegme, and helps to concoct and digest that which remains, and the Sugar sweetens its Acrimony, and helps to purge it away.

Now having given it this Medicine, lay it quietly to rest on his side, that the Excrements may be the better evacuated and cast forth at the Mouth: for if the Child lyes on the back, it would be in danger that remaining in its Mouth, a part of it would fall upon his Breast, which might choke him, or at least very much offend him. Let us now see how he must be fed and ordered hereafter.

CHAP. XVIII.

Of Dieting and Ordering a new-born Babe.

A Child, which during its stay in the Mothers Belly, had no other nourishment but the blood
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it receives by the *Umbilical Vessels*, hath for want of that, after its Birth, need to take some by the Mouth, and suck Breast-milk: However it is not good to give it suck as soon as it is born, to prevent that so sudden a change, as well in respect of the difference of nourishment, as the manner of receiving it, lest it cause some alteration in its health. First therefore empty the Phlegm out of his Stomach, giving him, as we have said, the first three or four daies, some Wine and Sugar, to cut and loosen it, to prevent the Milk he shall take from corrupting, being mixt with this viscous Phlegme; wherefore it is best to stay until the next day before you give it suck, that so it may be wholly evacuated, or digested and consumed, and then you may safely give him the Breast.

It were to be wished that the Mother should not give it suck, until the eighth day of her Child-bed at soonest, if not three Weeks or a Month; that so all the humours of her Body, being well tempered, and having recovered the agitation they received in the Travail, as also their Superfluities having been wholly purged by means of the *Lochia*, her Milk be thereby so much the more purified; besides this the small holes of the Nipples not yet being sufficiently opened, a new-born Babe cannot ordinarily at first easily draw her Breasts; during that time therefore let a Woman suck her.

But often poor people cannot observe so many Precautions, and such Mothers are obliged to give their Children suck from the first day: and likewise others will not suffer any but themselves to do it: in this case, let their Breasts be a little drawn by some old persons, or some lusty sucking Child;

or

or they may draw them themselves with a Glass, figured like that in the beginning of the 15th Chap. and afterwards they may give their Children suck when the Milk is a little brought down; let them continue to do thus, 'till the Milk be easy for the new-born Child to draw.

There are some who believe that the Milk of a Woman new-laid is better at the beginning than when it is purified; and that it opens the Belly and purgeth the *Mæconion* from the Guts; but the gripes, which this overheated and foul Milk also causeth in him, is much more prejudicial than the good it otherwise doth; wherefore it is best not to give it such new-milk, if possible. As to the fittest time then of giving the Breast to the new-born Babe, it must not be till after the first day, for the reasons above given; and to make him take it, because there are some that will not in three or four daies, the Nurse must milk a little into his Mouth and upon his Lips, that so he may by degrees taste it, then let her put the Nipple dropping into its Mouth, and squeeze her Breast with her Hand when he hath fastened, that the Milk may come down the easier, and that the Infant who hath yet but small strength, may not take too much pains to draw and suck it, doing thus dy degrees, until he is well accustomed to suck.

If the Nurse hath much Milk, she must not give the Child any thing else, at least the first two Months; Beasts do shew us, that Milk alone is sufficient to nourish an Infant, since that they do suckle five or six of their young ones, and sometimes more, without their taking any other food for a long time after. As to the quantity of Milk a Child ought

ought to suck, it must be proportionable to his Age and Strength ; in the begining he must not have too much, nor too often, that his Stomach not yet accustomed to concoct it, may the better digest it ; afterwards let it daily by little and little be augmented, until he may take his fill : As to the time and hour it needs no limits, for it may be at any time, night or day, when he hath a mind ; but let him have it rather little and often, than too-much at a time, that his little Stomach may the better concoct and digest it without Vomiting, as it often doth when it cannot easily contain it.

After the Child hath suck'd Milk alone for two or three Months, more or less, according as one finds he needs stronger nourishment, give him then Pap, made of Flower and Milk, though but little at first, and not too thick, lest his Stomach be soon overcharged by not being used to it ; or (that it may be of easier digestion) put the Meal in an earthen Pan, into an Oven assoon as the bread is drawn, stirring it often, to dry it equally. Pap made of this Flower, besides that it is sooner concocted, is much better than the ordinary, which is heavier, clammy, and not so easy of digestion ; for being made with raw Flower, 'tis very difficult to boil it well, without consuming the best part of the Milk, leaving only the grossest part behind, and losing by the long boiling both its goodness and taste. When the Child hath taken Pap thus made, which must be but once a day, especially in the morning, or twice at most, the Nurse may give it a little suck, to the end that being washed down into the Stomach, the digestion may be the better and easier made.

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There are many Women who give Pap to their Children as soon as they are born, and Nurses who have little Milk ordinarily do so, to hinder their crying as they will do when they are hungry; but sometimes this only is enough to kill them, because of the indigestion and obstruction it causeth, which by reason of its gross and viscid consistence, can hardly find passage through the Stomach and Guts, which at the beginning are but weak, and not sufficiently opened and dilated, whereby there happens to the Children great oppressions, and difficulty of Breathing, Gripes, Swellings, pains of the Belly, and often Death; wherefore do not give it the Child 'till after the first or second Moneth at soonest, and if you forbore it three or four whole Moneths, he would thrive the better, provided the Nurse wants no Milk.

When the Child hath sucked its fill, let the Nurse lay it to rest and sleep, not in the same Bed she lies in, lest unawares she overlay it; as I knew one that did and killed her Child, whether wickedly to be freed from it, or innocently, she alone knoweth: but to avoid this mischief, let her lay it in a Cradle close by the Bed-side, and put a Mantle over the head of the Cradle to prevent the falling of dust on its Face, and that the Day-light, Sunshine, Candle, or Fire in the Chamber, may not offend it. Lay him to sleep upon his Back, with his Head a little raised upon a Pillow; and to make him sleep the sooner, let the Nurse rock him gently with an equal motion, without too-great shaking; lest that hindering the digestion of the Milk in his Stomach, provoke him to vomit it up, just as persons do that are at Sea; not because of the scent of
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the Salt-water, but the shaking and tossing of the Ship wherein they are; and as it happens to many Women only by riding in a Coach, when they are not used to it. But that you may not be forced thus to rock a Child every time you would have him sleep, it is good not to use him to it at first, but let his sleep come naturally of it self. There needs no certain limited time for his rest, for he may sleep at any time night or day when he hath a mind to it, and ordinarily the better he is, the more he sleeps; however, if his sleep be very immoderate, it may be a little broken; to which purpose let his Nurse carry him in her Arms to the light, singing with a soft and sweet voice, shewing him some glistering thing to please his sight, and dancing him a little to awake him out of his drowsiness; for by too long Sleep, the natural Heat doth so retire inwards, that it is as it were buried there, by means of which all the Body, and chiefly the Brain, is so cooled, that the Infants Senses are thereby quite dull, and their functions languishing and stupified.

When he is in the Cradle, let it be so turned as it may be towards the Fire, the Candle, or the Chamber Window, that having the light directly in its Face, he may not be allured to look continually on one side; for doing so often, his sight will be so perverted, that he will grow squint-eyed: Wherefore for the better security, throw some Covering over the head of the Bed, as we have said, to hinder him from seeing the light; because by this means, his sight being staid from rouling from side to side, will be the better fortified. Let us now see how a Nurse must daily cleanse her Child from the Excrements.

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As the young of all other Animals have their bodies free, without the trouble of any coverings, so they easily discharge themselves of their Excrements, without being befouled; and they no sooner empty their Belly, but their Dam (if they cannot do it themselves) perceiving it, casts it forth of their Nest, or at least rangeth it in some one part, where it cannot hurt them: but it is not the same with Infants, who (for being bound and swathed with Swathes and Blankets, as we are forced, to give them a strait Figure only suitable to mankind) cannot render their Excrements, but at the same time they must be befouled, and in which, (because it cannot be perceived for their Clothes) they often remain, until the ill scent of it offends the Nurses nose; or that she doubts it, because of the Cryes and Tears of the Child, which is incommoded by the Moistness and Acrimony of it; to avoid which let the Child be opened and changed, at least twice or thrice a day, and also sometimes in the night, if necessary, to cleanse him from his Excrements, and change the bed, which ought to be well washed, and not slightly, as most part of hired Nurses do, which causeth a great itching, and galleth the Childs body, because of a certain salt coming from the Excrements, and not easie to be dissolved when the Blanket hath once imbued it, but by putting it into a Bucking-tub. The best time to shift the Child is immediatly after the Excrements are rendred, without suffering him to lye longer in them, than 'till he awakes, if he were then asleep.

Now since he may render them at any hour indifferently, no other time can be appointed to do it,

but

but when there is no need, that is, as often as it is necessary to keep him alwaies clean.

The Child must alwaies be opened before the fire, and his Beds and Clouts well warmed and dried, before he be put into them, lest their coldness and moisture cause a Cholick and Gripes; the Nurse likewise must be careful from time to time to put soft Rags behind the Ears and under the Arm-pits, to dry up the moisture there found, being very careful, during the first four or five daies, not to make the remaining part of the Navel-string fall off too soon, and before the Vessels of it be perfectly closed. Let her likewise see every time she opens him, whether the Navel, for want of being well tyed at first, do not bleed, or because the thread is loosened; and after the end is quite fallen off, let her still for some time swath the Navel, ever laying a boulder on the top of it, until it be well cicatrized and wholly depressed, and as it were sunk inwards. Besides this, let her put upon the Mould of the head, under the Biggen, another Compress, as well to keep the Brain warm, as to defend it from outward Injuries which might easily hurt it, because of the tenderness of that place not yet covered over with any bone; let her also be very careful not to let the Child cry too-much, especially at first, lest the Navel be forced outwards, and that there happen to him by its dilatation an *Exomphale*, or a rupture in the Groine; nor must she hearken to the sayings of some good people, who affirm it necessary a Child should sometimes cry, to discharge its Brain: the two best waies to quiet him when he cries, is to give him suck, and lay him clean and dry; 'tis likewise good to present to his sight things that rejoyce him,

and to remove what may affright, or grieve him.

All these directions in this present Chapter, concerning the Diet and Order of a new-born Babe, must be understood for one in health; for if he be any waies indisposed, he must be treated according as the case requires. This is what we intend to examine in all the remaining part of the Book.

CHAP. XIX.

Of the Indispositions of little Children, and first of their weakness.

Young Trees are scarce raised out of the Earth, which is their Mother, but often many of them soon after dye; because their small bodies, by reason of the tenderness of their substance, easily receive alteration, and cannot without great difficulty resist the smallest opposition, until they become a little bigger, and have taken stronger and deeper root: So likewise we see daily above half of the young Children dye, before they are two or three years old; as well because of the tenderness of their Bodies, as by reason of the feebleness of their Age, they cannot otherwise express the incommodities they suffer within, but by their cries. We have heretofore discovered how they ought to be governed in the beginning for the preservation of a good health; we will now discourse of the indispositions to which they are subject, principally from their birth, 'till they are seven or eight Months

Months old. Let us first mention some they are born with, and then wee'l entertain you with those that usually happen to them afterwards.

The first Accident to be remedied is the weakness many Children bring into the world with them; which often happens, not because they are so by Nature, but by the violence of a bad Labour, or the length of it, during which they suffer so much, that sometimes after they are born they are so weak, that it is hard to be discovered whether they are dead or alive, not any part of their Body being perceived to stir, which sometimes is so blew and livid, especially the Face, that one would think they were quite choaked. And many times, after they have been thus for whole hours, they recover by little and little from their weakness, as if they revived, and were returned from Death to Life.

One may guess that the Child is not effectually dead, although at first it doth in some sort appear so to be; if the Woman but a little before she was brought to Bed felt it to stir strongly; if she did not flood much, and if she had no very hard Labour: but 'tis very certain he is yet living, although he do not cry, nor move any part of his Body after he is born; if laying the hand upon his Breast the motion of the Heart be felt; or touching the Navel-string near the Belly, there is yet perceived a small pulsation of the Arteries: Then all sorts of means must be used to recover him out of this weakness.

Now the best help in this case is, to lay him speedily in a warm Bed and Blanker; and carry him to the fire, and there let the Midwife sup some

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Wine, and spout it into his Mouth, repeating it often if there be occasion; let her likewise lay Linnen, dipt in warm Wine, to the Breast and Belly; let the Face be uncovered, that he may draw breath the easier; and to be yet more helpfull to him, let the Midwife keep his Mouth a little open, and cleanse the Nostrils with small linen tents, also dipt in white Wine, that so he may receive the smell of it; let her chafe every part of his Body well with warm Clothes, to bring back the Blood and Spirits, which for being retired inwards through weakness, put him in danger of being choaked: in doing thus by little and little, the Infant recovering his strength, will insensibly come to stirr his Limbs one after another, and so at first cry but weakly, which afterwards, as he breaths freer, will augment and become stronger.

Besides these helps we have mentioned, which certainly are the best and most certain for the weakness of a new-born Babe, Midwives ordinarily make use of others, which I do not approve of, not only because they are useless, but because some of them are very dangerous to the Child. Some lay the After-burthen, being very warm, to the Belly, and leave it there 'till it is cold. I have elsewhere declared, that the Burthen, by reason of its heat, may be something serviceable; but notwithstanding, because of its weight, being so placed upon the Childs Belly, which wanting a support is easily compressed, it doth very much hinder his respiration, which at that time is most necessary for him. Others cast the *Secundina* into the Fire before it be parted, and some put it in warm Wine, believing that by this means the strength of the Wine

conveigh-

conveighed through the *Umbilical* Vessels, is able to give him new vigour : But as this fleshy Mass, and these Vessels, are dead parts as soon as they are out of the Womb, so there remains in them no spirits which can be communicated to the Infant : And if this practice be continued, it must rather be to satisfy custome, than for any hope of benefit to be thereby received.

If these things do no good, yet do they no great hurt, but are only useless ; but this which follows is capable to suffocate a Child immediately, that is, when some do thrust back, and make the Blood which is in the *Umbilical* Vessels to enter into the Body, believing that it fortifies and recovers the Child out of its weakness ; but we have elsewhere declared, that the Blood contained in these Vessels lose their spirits as soon as the *Secondine* is separated and come forth of the Womb ; nay, it is there immediately after, half congealed : Now if it be thus thrust back into a weak Childs Liver, it remains there, being no longer animated with any spirits, and instead of giving him new strength, it overcomes that little which remains, and compleats the extinction of his languishing natural heat : to avoid this, be careful not to force back the Blood thus into the Infants Belly, for besides in these weaknesses, (unless it should be otherwaies by the Mothers flooding before she was brought to Bed) there is alwaies too much of it in the Infants body, and instead of sending more to it, there must be some drawn back from it towards the extremities, that so its Ventricles being a little discharged, may have afterwards a more free motion to send back the spirits to all parts, which are deprived of them by these faintings :
Wherefore

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Wherefore since the Child must receive nothing from the *Umbilical* Vessels after its Birth, let them be tyed as soon as may be, and then ordered according as we have directed.

Very often the Children which are weak at their Birth, are so by nature; as when they come before their time, and are so much the weaker, by how much they want to compleat the end of the ninth Moneth, and also when they are begotten by infirm and sick parents.

These are hard to remedy, and there is nothing more to be done, but to nourish and order them well according to our former directions; but it will be rare for them to be long-lived, and it is much if they do not dye by the least indisposition that befalls their natural weakness.

CHAP. XX.

Of Contusions, or Bruises of the Head, and other parts of the Body of a new-born Babe.

THe Bodies of new-born Children, are, as we have said, so tender and delicate, that they are easily bruised and hurt; and sometimes in a bad Labour their Members are dislocated, either because it remained long in an unnatural Posture; or because they were handled too rudely in the Operation: the most usual and frequent bruise is for the most part on the top of their Head, where sometimes at their Birth, they have a Knob, as big as
half

half an Egg, if not bigger, as is usually seen in first Labours; and which happens the sooner, according as the Woman is advanced in Age; because the inward orifice of the Womb, called the Garland, being more *callous*, doth not dilate without much difficulty; for which reason, the Childs head pressing against it, and the upper part of it (which naturally presents first to the Passage) being begirt with it as with a Garland, is pult up and swelled (because of the Blood and Humours which fall down, and are retained in this part) by the great compression which this inward orifice makes round about, especially when the Throwes begin to be strong, and the Child comes but slowly forward, after the Waters, which did a little defend it, are broke away; the Midwife also may do much ill in it, if she toucheth it too-often, or too-roughly with her Fingers, when it lyes in the Birth; but many times they are in this case wrongfully accused; because for the most part the single compression this orifice makes in form of a Garland about the Childs Head is the cause of this kind of bruised Tumours.

This part swells after the same manner as we see all others, which are either too-strongly prest, bound, or lased; for by this means, the Blood which cannot circulate, being stopt in great abundance in one part, obligeth it to swell and be blown up; and, by the repletion it makes, renders it livid, as if it were bruised: Now this compression is much-greater in respect of the Veins, which are alwaies more outward, and ought to carry back the Blood to the Heart, than of the Arteries, by means of which it is carried to all the parts; for besides
that

that the Arteries lye deeper, they have also a continual Pulsation, by the favour of which a little Blood ever slides away ; and this is the reason that in all Compressions or Ligatures of parts, provided they be not too-hard, the Blood is easily carried into them by the Arteries, and but very hardly, or not at all, carried back by the Veins; which is the reason that the part receiving much more than it sends back or consumes for its nourishment, must needs swell on this fashion by Repletion. If they that practise Midwifery do but well consider what I have said, when occasion offers, which is very often, they will find that these kind of Knobs or Tumours, which many Children have on their Head at their birth, proceed ordinarily from no other cause than what I have here explained.

These Tumours many times are so great and high, that (the Woman not being yet delivered, nor having the inner Orifice of the Womb well dilated) they do hinder the discovery of the part the Infant first presents, making Midwives sometimes to imagine, not being able to feel any bone of the Head with their Finger, that it is the Childs Shoulder, or some other part, nay some of them cannot tell what that swelling is they feel : but they may soon know it, by reason these Tumours, though feeling very fleshy at the touch, are notwithstanding harder than any Shoulder, or Buttock of a Child, which parts are alwaies more soft and without hair, as the Head hath, the Bones of which may also be easily perceived, if having the Finger anointed with Oyl or fresh Butter, it can be introduced in-

to the inner orifice, for the parts of the Head within the Womb, are not swelled, 'tis only this which offers to the Orifice, and is prest and begirt by it, as we have said. If a Child comes with any other part besides the Head, as an Arm or a Leg, and that these parts likewise remain a long time prest in the Passage, and in a posture much constrained, or that they be come forth, they likewise swell for the same reason.

There must not only be Remedies applied to these Knobs and Bruises of young Childrens Heads, but endeavours must be to prequent them, or at least to hinder them from becoming so big: the means to prevent them, is to procure the Delivery as soon as may be, that the Infants Head may not rest so too long, and be straitned by the Garland of the inner orifice of the Womb, which must be well anointed with Oile, or *Emollient* Ointment, as well to further its dilatation, as that the Head may the sooner and the easier pass.

Some may object, That if these Tumours happen from the cause I have mentioned, they would disappear as soon as the Infant is born, because then the Head being no longer prest, nothing hinders the Blood, which had tumefied the part, from returning, having its motion free: But they must know, that by its too-long stay it makes in one part, it looseth the spirits which are there suffocated, of which being destitute, it can no longer move, and being extravasated without the Vessels, out of its natural place, (as it will be, when the Vessels containing it are too full) it slides into all the little vacuities of the part, for which cause it cannot afterwards

terwards return by the ordinary waies; wherefore there is a necessity in this case, either that it be resolved through the part, or if it stay any time, that it comes to *Suppuration*; which however must be avoided, if it be possible, because of the nearness of the Brain, which in Infants is not covered over with the Skull at the *Sutures*, which are alwaies very open, especially towards the Mould.

To resolve these Tumours then, as soon as the Child is born, foment them with warm Wine, or *Aquavita*, and wetting a Compress in it, put it upon them; some Mid-wives only dip a Compress in Oyl and Wine beat together; others in Oyl of *Roses* onely, having first fomented them with Wine: but if, notwithstanding this, they come to *Suppuration*, the matter must not be suffered to remain there too long, for fear lest the bones of the Head (which are very tender and thin in new-born Children) become altered and soule; in this case, it must be opened with a *Lancer* in a proper place, according to Art, putting upon it afterwards a Plaister of *Bettony*; if a Leg or an Arm be thus swelled, it must likewise be wrap'd up with Compresses dipt in Wine, wherein *Provence-Roses*, *Camomil-Flowers* and *Melilot* have been boyled.

Sometimes also Male-children have the *Scrotum* very much swelled, which may happen to them by reason of some Waters contained in their *Membranes*; or because they were bruised, or too rudely handled by the Chirurgeon, or Midwife, in the Labour. In these cases, Compresses dipt in Wine with *Roses*, are very proper to both.

But the greatest mischief is, when the Chirurgeon



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geon (being either inexpert and unhandy in such an Operation, or because of a bad Labour it could not possibly be otherwise) breaks or dislocates a Leg or an Arm of the Child in extracting of them: if it thus happens, you must afterwards help it, by putting together the parts, and keeping them so with fit Boulsters, or Splinters, in their natural situation, until they shall be well closed and fortified.

CHAP. XXI,

Of the Mould of the Head, and of the Sutures being too open.

VERY often Children, who come before their time, not having yet acquired their full perfection, as also they which are by nature weak, have the Mould of their Head, and the Sutures so open, by the distance and separation of the Bones one from another, that it is very soft and almost without any support, because the Bones easily yeild to every side; these Children are not usually long-lived. One must not think then to bring the bones close together, by binding the Head strait, for this would so presse the Brain, which is very tender, that it would cause a worse Malady, in taking away the liberty of its motion, whereby its functions would be depraved, and afterwards totally abolished. It will be sufficient to bind them softly with a small Cross-cloth, lest they should be too unsteady, and commit the rest

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to Natures work, which by degrees will close up these *Sutures* (in finishing to ingender) and dry up and unite these bones of the Head, which were not hitherto perfectly formed.

The place where the *Sagittal Suture* joins and terminates, in the midst of the *Coronal*, which it alwaies in every Child divides in two, continuing to the very root of the Nose, is called

* *Mould*. * the Fountain of the Head, because 'tis the softest and moistest part of it, which for this reason is the last dried and closed up. The Figure of it is represented in the Head, placed at the beginning of this Chapter.

There are Children who have it sometimes open 'till they are three years old, if not longer, which is a great sign of the weakness of their natural Heat. It is usually quite closed up at the end of two years, and sooner or later, according as the Infant is more or less moist, or more or less strong. Until these Bones are entirely closed, 'tis convenient to lay upon that place (as we have already elsewhere directed) a Linnen Compress three or four double, to defend the Head, as well from Cold, as other external injuries. Some Women keep a piece of Scarlet cloath a long time to it, thinking that it doth strengthen the part more; 'tis no matter what one uses, provided it will keep the Brain warm, and hinder any hurt in that place, which is not as yet covered over with any bone.

It happens sometimes, that although the bones of the Head be big enough to unite in all parts, if they were not hindred, they are however extremely distant one from the other in the place of the

Sutures;

Sutures; because of the quantity of Waters contained between them and the *Dura Mater*; this Malady is called *Hydrocephale*, of which there are many sorts, according as the Waters are nearer, or further from the Brain, or that they are contained within its Ventricks. When the Waters are between the Skin and the *Pericranium*, or between the *Pericranium* and the Skull; the Children may be cured of it, if the Tumour be not too great, by resolving of these Waters, or emptying them by an Incision: but if they are in great abundance; under the Bones, between them and the *Dura Mater*, thrusting them so outwards, and enlarging the *Sutures*, the Children cannot escape it; which is yet so much the more impossible, if the Waters are contained between the *dura* and the *pia mater*, or within the Brain.

CHAP. XXII.

Of a new-born Babes Fundament being closed up.

IT happens sometimes that young Children, as well Male as Female, are born with the Fundament close stopp'd up; for which reason they cannot render nor evacuate neither the new Excrements engendred by the Milk they suck, nor the *Maceration*, which was amass'd in their Intestines; whilst they were in the Mothers Belly; of which Disease they certainly dye, if not speedily remedied.

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There have likewise sometimes been Girls, who having the Fundament closed, yet voided the Excrements of the Guts by an orifice, which nature, to supply its defect, had made within the *Vagina*, or Neck of the Womb.

Now the Fundament is closed two waies, either by a simple Membrane, as the single Skin, through which one may perceive some livid marks, proceeding from the retained Excrements, and touching it with a Finger, there is felt a softness within, whereabouts it ought to be pierced: or else it is quite stopp'd up by a thick fleshy substance, and in such sort, that there appears nothing without by which its true scituation may be discerned.

When there is nothing but the single Skin which makes this closure, the operation is very easy, and the Children may escape. Then an Apertion may be made with a small Incision-knife, cross-waies rather than simple or long, that it may the better receive a round form; and that the place may not afterwards grow together, being very careful not to hurt the *Sphincter* of the *Rectum*. The Incision being thus made, the Excrements will certainly have issue: but if because of their long stay in the Belly being become dry, the Infant cannot void them, some small Clyster must be given it to moisten and bring them away; afterwards put a linnen tent into the new made Fundament, lest it close again, which must be at first anointed with Honey of Roses, and towards the end with a drying and cicatrizing Ointment, as *Unguentum album*, or *Pompholyx*; observing to cleanse the Infant of his Excrements, and dress it again as soon and as often as he renders them, for fear lest their staying too

long

long there, may turn the Apertion into a most
 lignant Ulcer.

If the Fundament be so stopt up, that neither
 marks, nor appearance is seen or felt, then the
 Operation is much more difficult; and although it
 be done, it is a great hazard if the Infant escapes it
 wherefore if it be a Girl, which empties her Excre-
 ments by the *Vagina*, as it sometimes happens, 'tis
 better not to meddle with it, than by endeavouring
 to help an inconvenience, cause the Childs death;
 but when there is no vent for the Excrements, there
 is a necessity to come to the Operation, though it
 be very perillous, without which death would un-
 doubtedly follow.

To do this well, although there be no outward
 marks of a fit place, because of the thickness of the
 flesh which is upon the Intestine, let the Chirur-
 geon with a small Incision-knife, that hath but
 one edge, enter into the void place, and turning
 the back of it upwards, within half a Fingers
 breadth of the Childs Rump, which is the place
 where he will certainly find the Intestine, let him
 thrust it so forward, that it may be open enough
 to give free vent to the matters there contained;
 being alwaies very careful of the *Sphincter*, after
 which let the wound be dressed according as we
 have above directed, having regard to the Acci-
 dents which may follow.

When it happens, as it is very possible, that the
 Urinary passage, as well of Male as Female, is
 stopt up, the like Apertion must be made to give
 passage to the Urine contained in the Bladder, and
 afterwards a small Leaden pipe must be introduced
 into it, to keep the passage open until the Incision

here made by a Ligament benestituted : but as it is very difficult to have such a Pipe retained in a little Boys yard, which because it is so short, will admit of no proper swathing, it may be let alone, since the Urine which he renders at all hours, will hinder the Apertion from closing.

CHAP. XXIII.

Of cutting the Tongue, when Tongue-tyed.

THe Tongue is naturally tied with a Ligament sufficiently strong, fastened just underneath in the middle of it, to be in stead of a support; upon which being sustained, it may make all its different motions on either side: this Ligament ought to leave it an entire freedom, of being carried and supported in all places of the Mouth: wherefore it must not be so short nor so fastened, but at a convenient distance from its extremity, which must be perfectly free on all sides: But often new-born Babes have before it a small membranous production, usually called the String, which is continued almost to the end of their Tongue, and taking away the liberty of its motion, hinders them from sucking with ease; because the Tongue, being kept down and as it were bridled with this thread, the Infant cannot move it upwards (as it is necessary) to press the Nipple with it against the Palar, and to suck it to draw the Milk, neither can it move it commodiously to swallow it afterwards.

To remedy this inconvenience, you must not

do as some Women do; and tear this Thread with your Nails; for that may make an Ulcer there, which afterwards would be hard to cure: but carry the Child to a Chirurgeon, and he will cut as much or as little of it as he thinks needful, with sharp Scissers, cutting at the point, being careful not to cut the proper Ligament of the Tongue, nor to open the Vessels which are under it: to do this Operation handsomely, let him heave up the Childs Tongue with one or both of his Fingers, which he must put under and on the sides of it, that he may discover what is necessary to be cut. But since new-born Children have often their Mouths so little, that it is very difficult so to lift up their Tongue with your Fingers, which being within the Mouth, doth likewise hinder you from seeing what is fit to be done, let the Chirurgeon for this purpose make use of an Instrument, made like a small Forke, as is represented in the beginning of the Chapter of which let him put the two small branches (which must be blunt at the points) underneath the middle of the Tongue on each side of the String, and then lifting it strait up, he will easily command it, by means of which he will make his Operation more commodiously and certainly.

This Instrument, because it is little, will not hinder the inspection into the Mouth, as the Fingers which are too big will do. After that the Tongue is thus dexterously cut, the Nurse must every day twice or thrice pass her Finger, being very clean underneath it, to prevent its growing together again, doing it very gently, for fear of irritating the small wound, that it may not be inflamed; which will be a greater hindrance to the

Child sucking, and that it turn not into an ill natured Ulcer.

CHAP. XXIV.

Of Gripes and Pains of the Belly of a young Child.

MAny Children are so griped, that they cannot forbear crying night nor day, for the great pains they feel in their Belly, with which some are so vexed and tormented that they dye of it. 'Tis very often the first and most common distemper which happens to little Infants after their Birth, which in general and for the most part comes from the sudden change of their nourishment, forasmuch as having alwaies received it by the *Umbilical* Vessels, whiles they were in their Mothers Belly, they come to change it of a sudden, not only the manner of receiving it, but the nature and quality of it as soon as they are born; for instead of purified Blood only, which was conveyed to them by means of the *Umbilical* Vein, they are obliged for want of it to be nourished with their Mothers Breast-milk, which they suck with their Mouth, and from which are engendered many Excrements, causing the Gripes, as well because it is not so pure as the Blood with which it was fed in the Womb; as because the Stomach and Intestines cannot yet make a good Digestion, nor an easy Distribution, being not accustomed to it.

The particular causes of these Gripes are, either when the *Menstruum* (massed during all the time of Pregnancy) is not evacuated soon after the Infants birth, and that by its too long stay in the Intestines, it acquires a sharp and pricking Acrimony; or that becoming hard, the Infant cannot void it, nor the new Excrements which proceed from the Milk, which he hath taken at the first; 'tis also sometimes because the Child not being able to suck with ease, he swallows, in sucking the Milk with difficulty, much air and wind, which being retained in the Stomach, and sliding into the Intestines, doth painfully distend them. This Wind sometimes is caused, when a Child takes a greater quantity of Milk than he can digest; or because of its ill quality, as when the Woman gives her Breast-milk as soon as she is delivered, without staying to have it purified. Cold may also make it suffer the same. But very often it is for giving him Pap too soon, as also when it is not enough boiled; because this nourishment, which is gross and viscous, cannot be easily digested by a new-born Babe, whose Stomach is not yet accustomed to it; and Worms, that are engendred in the Intestines, by their stirring and biting do also much torment them. Besides all these things already mentioned, the Midwife also may cause great pains in the Childs Belly, by driving back into it the cold and clodded Blood out of the Navel-string before it be tyed.

For to remedy all these pains in the Belly, which Women usually call all by one common name of Gripes, respect must be had to their different causes: as to that which is the general cause, the

too sudden change of the nourishment. To avoid it, one must forbear giving the Child suck, until the next day, lest the Milk being mixt with the Phlegm which is then in the Stomach, corrupt; and at first it must suck but little, until it be accustomed to digest it. If it be the *Maccomion* of the Intestines which by its long stay causeth these pains; for to help to discharge them of it, give them at the Mouth a little Oyl of sweet Almonds, and Syrup of Roses, as we have directed before; and to provoke it further, give it *Beets*-stalk, covered over with Honey, for a Suppository; or a sugar'd Almond also dipt in common Honey: or one may give it a small Clyster.

If a Child cannot suck with ease, regard must be had to that which hinders it; for if it be Tongue-tied, it must be cut, as is above directed; and if it be because the Nurse is hard milch, change her for one whose Milk is better purified; and let her rather suckle it a little and often, than more at once than the little Stomach can easily digest at a time. And above all whiles the Child is griped give it no Pap; because this food, by its viscosities, doth easily cause obstructions, which afterwards engender Wind. If it be Wormes, lay a cloath, dipt in Oyle of *Wormwood* mixt with Ox-gall, upon the Belly; or a small *Cataplasme* mixt with Powders of *Rue*, *Wormwood*, *Coloquint*, *Aloes*, and the seed of *Citrons*, incorporated with Ox-gall and flower of *Lupines*; and to draw & drive them more downwards, if the little Infant can take any thing by the Mouth, give it a small infusion of *Rubarb*, or half an Ounce of compound Syrup of *Succory*; having before given it a small Clyster of sugar'd

sugar'd Milk: for by this means the Wormes, which shun the bitterness of the Medicines, and seek after the sweetness of the Milk, are easily brought away by Stool.

When these Gripes are caused by Wind, as it often happens, or by any sharp Humours in the Intestines, anoint the Childs Belly all over with Oyl of *Violets*, or with Oyl of sweet *Almonds*, or else with Oyl of *Walnuts*, *Camomil*, and *Melilot* mixt together, having first warm'd them, in which also a Cloath may be dipt to lay upon it; or a small Pancake may be made with an Egg or two fried in Oyl of *Walnuts*, for to be applied to it; and they may take a little *Anodine* or *Carminative* Clyster, according as the cause of the Gripes is known; above all, ever keeping the Child very warm.

CHAP. XXV.

Of the Inflammation, ulceration, or shooting forth, or rupture of the Navel of a young Infant.

THe continual cries of little Children, because of the Pains and Gripes which they feel at the beginning, doth sometimes cause such an agitation of the Belly, that the Navel-string falling off too soon, and before it be entirely closed and cicatrized, there happens there an Inflammation and Ulceration; at other times also for the same reason,

reason, although it be outwardly healed, not being so within, it is dilated and thrust outward, the bignesse of a small Egg, and sometimes bigger, which is usually called *Exomphalos*, or shooting forth of the Navel.

There are some who imagine when it is so inflamed and ulcerated, that it was because the String was tied too near the Belly, which caused a great pain and inflammation to follow : Others say, that Nature having used to discharge the Urine by this part, during the Childs being in the Mothers Belly, doth at first still continue to send it this way, and that it causeth this Accident by its acrimony, for which there is no reason : for 'tis impossible the Urine should regorge from the Bladder to the Navel by the *Urachus* ; forasmuch as it is not hollow in an humane *Fœtus*, as we have elsewhere made appear. And how near the Belly soever the Navel-string is tied, and how hard (provided some of the true skin, which is sensible, be not also tied with it) it can cause no manner of pain to the Child ; because it is a dead and inanimate part as soon as a Child is born, and likewise insensible ; because there is no Nerve distributed into it. But this Inflammation usually comes, as I have mentioned, because the Infant, feeling the great pains and gripes in his Belly, doth continually cry, and thereby hinders the Navel from healing ; it may likewise be caused by a violent and frequent Cough, because by these efforts, the Blood is forced back into the remaining end of the *Umbilical Vein*, which it alwaies keeps dilated, and being corrupted by its stay there, failes not to make an inflammation of the Navel, and that which was

tyed

eyed coming to fall off before it was perfectly healed, there remains a very bad Ulcer, upon which sometimes follows great loss of Blood; and it may be Death.

The principal thing to be observed in the cure of this Malady, is to appease the Cough, and quiet the Childs crying, respecting that which causeth it, without which it would daily increase; and if it were the Gripes, it must be remedied, as is directed in the foregoing Chapter: as to the rest, if the Navel be inflamed, one must lay upon it *Unguentum refrigerans Galeni*, mixt with as much *Populeon*; or a small Boulster dipt in Oyl of Roses with a little Vinegar: *Unguentum Rosatum & Albulum*, mixt together, is also good for it. If the Navel continues ulcered, after the String is fallen off, *Desiccative* and *Astringent* Medicines must be applied to it, such as is small Rags dipt in *Lime* water which is not too strong, or *Plantane* water wherein a little *Alum* hath been dissolved. If the Ulcer be small, a Pledge of dry Lint will be sufficient. Many put to it only a little powder of a *Pist*. These things are better for this purpose than Plaisters, which are never so drying, because of the Oyles and Grease which enter into their composition. But if notwithstanding one would use them, he may take *Desiccativum rubrum*, or *Diapompholigan*, particularly observing to put a good linnen Compress on the top of these Remedies, with a Swath to keep them fast, until the Navel be cicatrized and perfectly healed; lest besides its Ulceration, it be forced outwards, and that its Vessels open by the violence of a great Cough, or by the agitation which the Gripes cause in the Childs Belly.

As to the rupture of the Navel in young Children, whether great or little, the cure of it must not be otherwise undertaken than by Swathes and Compresses fitted for the purpose, 'till they have acquired a more reasonable Age; when, if the Malady be not cured by the Swathes, the Operation may be done if desired: But if after the inflammation there growes an Imposthume, which causeth the shooting forth of the Navel, and that the tumor of it be very great, then it ever kills the Children, and if it be opened, the matter indeed may be emptied, but there is great danger that together with it, the Guts come forth in the same place the first time the Child cries, which may afterwards persuade those that understand not the Art, that this accident happened through the Chirurgeons ignorance. For this reason *Ambrose Paré* in his 94th Chapter of his Book of Generation, adviseth you not to meddle with it, but rather to let the Child die, without doing any thing to it, as he saith he did himself, when he was sent for by a Taylor in the like case.

He recites in the same place a story of a Chirurgeon of his time, called Mr. *Peter de la Rock*, who was in very great danger of his life, for having opened an Imposthume of the Navel of a Child of *Monsieur de Martignus*, which being done, the Intestines came forth by the orifice, and soon after the Child died, which the servants of the house reported was thereby caused, and therefore (although without reason) they would have killed him; if the said *Monsieur de Martignus* had not hindered them: but I believe the Chirurgeon had shunned the danger they put him in, and that disgrace,

disgrace, if he had before made a good Prognostick of what would follow, and the danger wherein the Infant was; for it may be, resembling many of our time (who undertake such things that they may be thought more able than others, and being but simple fellows, boast themselves capable to work miracles) he had promised speedily to cure the Child of this Maladie, which was incurable; that (under so fair hopes) he might have a good summe in hand paid him. In this we must follow Paré's advice with some distinction; for, if the Impostume be small, and the Child strong, one must not forbear, having first made a good Prognostick, to open it; and when there is never so little hopes, 'tis better to practise what Art commands, than to forsake the sick in a certain despair.

Remedyes must be applied to the inflamed parts, which will be cooled and cured.

CHAP. XXVI.

Of the Smartings, Redness and Inflammation of the Groin, Buttocks, and Thighs of the Infant.

IF the Nurse doth not keep the Child very cleanly, nor changing the Beds, or washing them each time; or as soon as they are fouled with their Excrements, their acrimony will not fail to cause redness and smartings in the Groins, Thighs and Buttocks; and afterwards, because of the pain, these parts will inflame, which easily happens by reason

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low of the tenderness and delicacy of their skin, ^{rough and hard} from which the * Epidermis. * The inward skin if it be at length separated of the body, and worn away, if timely care be not taken,

The cure of these Indispositions is twofold; (that is) first to keep the Child cleanly: and secondly to take off the sharpness of its Urine. As to the first, the Nurse must cleanse the Child of his Excrements as soon as he hath voided them, shifting it each time with a clean body, washed in the Buck: as to the second thing, to be observed, of tempering the Childs Urine, that cannot be executed but by the Nurses keeping a cooling Diet, that so her Milk may have the same quality; wherefore let her abstain from all things that may heat her.

Besides these two generals, cooling and drying Remedies must be applyed to the inflamed parts. Wherefore each time the Childs excrements are wip'd off, let the parts be bathed with *Plantane* water, mixt with a fourth part of *Lime-water*; and if the pain be very great, let it only be fomented with luke-warm Milk.

Many Women ordinarily use the powder of a *Pest* to drie it, or a little *Mil-dust*, which they strew upon it. *Unguentum Album*, or *Diapniphiligos*, spread upon a small rag, in form of a Plaister, will not be unusefull: Above all, when the Nurse opens the Child, let her be very careful to wrap the inflamed parts with fine white rags, that those parts may not, by rubbing together, be more galled and pained.

CHAP. XXVII.

Of the Ulcers (or Thrush) of the Mouth of an Infant.

Very frequently the Milk of a Nurse, that is Red-haired, given to Wine, or very amorous, may by its heat and acrimony cause small Ulcers in an Infants Mouth, which are called *Apthæ*, and vulgarly *Cancers*; sometimes also though the Milk have no ill quality in it self, it may however corrupt in the Childs Stomach, because of its weakness, or for some other indisposition, in which acquiring an acrimony, instead of being well digested, there arises thence biting Vapours, which forming a thick Viscosity, sticking like a kind of white Soot all over the Mouth, doth easily cause and engender these small Ulcers, by reason of the tenderness and delicacy of it. This *Guide* makes us take notice of, when he saies, that these Ulcers for the most part happen to Children by the badness of the Milk, or by its ill digestion.

Of these Ulcers, some are benigne, as they that are caused by a simple heat of the Nurses Milk, or by the Childs blood and humours being a little overheated; or also for having had a small fit of a Feaver, and they are then very superficial, of small continuance, and easily yielding to Remedies; Others are malignant, such as are caused by a venereal Vnome, or that happen after a malignant Feaver,

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Feaver, and are *Scorbutick*, which are putrid, corrosive, and spreading, and do not only possess the superficies of the *membranes*, which covers the roof of the Mouth and Tongue; but making its Scabs deeper, is communicated to all the internal parts of the Throat, as the *Venerical* ones especially, which can never be cured by ordinary Remedies, but must be handled with *Specificks*, without which they ever augment, and soon kill little Infants, who are too weak to undergo the Remedies fit for their cure.

The Ulcers of the Mouth, according to *Galen*, are of difficult Cure; because they are in hot and moist places, where easily Putrefaction and Corrosion is augmented; besides the Remedies applied cannot lodg there, being soon washed away with Spitte.

To cure these Ulcers when they are small and without malignity, you must take care to temper and cool the Nurses milk, prescribing her a cooling Diet, bleeding and purging her also, if there be occasion; wash the Childs mouth with Barley or *Plantane*-water, and Honey of Roles, or Syrup of drie Roles, mixing with them a little Verjuice, or juice of Lemmons, as well to loosen and cleanse the viscons Humours which cleave to the inside of the Childs mouth, as to cool those parts which are already overheated; this may be done by means of a small fine Rag fastened to the end of a little stick, and dipt in this Remedy, wherewith the Ulcers may be gently rubbed, being careful not to put them to too much pain, lest irritating of them, an Inflammation be caused to augment the malady. The Childs body must not be kept open, that the Humours

Humours being carried to the lower parts, so many vapors may not ascend, as usually do when the Excrements of the Belly are too-long retained.

If the Ulcers participate of any malignity, let *Topical* Remedies then be used, which do their work speedily, and as it were in an instant, for to correct the evil qualities of the humours that cause them, and prevent their further augmentation; for it being impossible if they should remain long in these parts, but their effect and vertue would be hindered, or much diminished by the moisture of the Mouth. For this purpose touch the Ulcers with Water of *Plantane* sharpened with Spirit of *Vitriol*, taking great care that the Infant swallows none of it; and the Remedy must be so much the stronger and sharper, as the Ulcers are profound and malignant; as soon as they have been cauterized with this Water, by only touching them once or twice with it, according to their bigness, depth, or corruption, that no sharp *Serosities* may distill upon the places not yet ulcered, and upon the Infants Throat, wash its Mouth with *Plantane* water, or with a Decoction of Barley, *Agrimony*, and Honey of *Roses*, continuing to touch and wash the ulcers as it may be judged convenient, and until you find that they spread no further. To prevent that in the use of these sharp Medicines, not the least portion of them may fall upon the Childs Throat, and that by swallowing of them he may receive no great prejudice, some chuse rather to cauterize these Ulcers with small Linnen tents, dipt in boiling Oyl, which though afterwards swallowed, cannot in the least prejudice him. It will also not be amiss to purge the ill Humours out of the whole habit of

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the Child, giving him half an Ounce of Syrup of *Succory* with *Rhubarb*.

If these Ulcers are maintained by a *Venercal* venome, these Remedies may for some time hinder their increase; but they will never be cured, unless such as are more *specifick* to that Malady be applied, as we shall hereafter direct.

CHAP. XXVIII.

Of the pain in breeding the Teeth.

THE Teeth which were hidden in the Jaws, usually begin to come forth, not all at a time, but one after another, towards the fifth or sixth Month, sometimes sooner and sometimes also later; for to effect which, they cut the Gums wherewith they were covered. Then because of the exquisite sence of those parts, there happens so great pains to the Children, that many who hitherto were very well, are now in great danger of their life, and often die, by reason of many mischievous accidents which happen to them at that time. *Hippocrates* names the principal of them in the 25. *Aphorism* of his Third Book. *In progressu vero quum jam dentire incipiunt, gingivarum prurigines, febres, convulsiones, alvi profluvia, & maxime quum caninos edunt dentes, & his praeferim pueris, qui crassissimi sunt, & alvos duras habent.* "When, saies he, Children begin to breed their Teeth, they are troubled "with itching of their Gums, Feavers, Convulsions "and Loosnesses, and principally when they breed their

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their Tusks, or Dog-teeth, especially those Children who are fat (or full of Humours) and bound.

The Dog-teeth, commonly called the Eye-teeth, cause more pain to the Child than any of the rest; because they have a very deep root, and a small Nerve more considerable, which, 'tis said, hath communication with that, that makes the Eye move: and as *Hippocrates* also saith, Those Children which are very gross and bound in their body, are upon this account in much more danger than others; because the pains in these causeth a much greater fluxion of humours upon the diseased part, with which their bodies alway abound, when they are costive. The Teeth which are first bred, are the cutting, or fore-teeth, as well because they are sooner perfect, as because, being smaller and sharper, the Gums are easier pierced through, and also with less pain, than by the rest, which are softer at the beginning, and being larger cannot so soon make their way, at least not without greater efforts.

Signs when Children will breed their Teeth, are when the Gums and Cheeks are swelled, they feel a great heat there, with an itching, which often makes them put their Fingers in their Mouths to rub them, from whence much moisture distills down into the Mouth, because of the pain they feel there; the Nurse in giving them suck finds the Mouth hotter, they are much changed, and cry every moment, and cannot sleep, or but very little at that time; and one may feel and see small points of the Teeth through the Gums, which appear thin and pale on the top, and swelled and red on the sides; and if it happens that the Teeth are a

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long time ere they are cut, or that too many of them cut at a time, there is great danger the Children will fall into those accidents mentioned by *Hippocrates* in the aforesaid *Aphorisme*, and if it do not quickly cease, they'll die of it, as many do.

In this case two things must be regarded; the first to preserve the Child from the evil Accidents that may happen to it, because of the great pain; and the second, to assist as much as may be, the cutting of the Teeth, when they can hardly cut the Gums themselves.

To prevent these Accidents to the Child, the Nurse must keep a good Diet, and use all things that may cool and temper her Milk, that a Fever may not follow the pain of the Teeth; and to hinder that the Humours may not fall too abundantly upon the inflamed Gums, keep the Childs Belly alwaies loose, to empty them downward, to which purpose give him gentle Clysters, if he be bound; but there is often no need of them, because at that time they are usually troubled with a Loosness.

As to the second, which helps the cutting of the Teeth, that the Nurse must do from time to time, who must pass her Finger upon the Childs Gums, gently rubbing them, that being thereby rarefied, they may be the easier penetrated, and cut by the Teeth, which are ready to come forth; to which also the Child may it self be helpful, if they give it a little stick of *Liquorice* to champ, or a little end of a small new wax-candle, which is very good to soften the Gum. There is ordinarily made use of a Silver Coral, furnished with small Bells, to divert the Child from the pain it then feels. Some-
times

times instead of Coral, they put a Wolfs tooth in. One must not however believe that these things have any peculiar property, as many Women imagine; but if they are helpful in this case, it is because of their solidity, evenness and smoothness; for the Child rubbing the Gums with it, to ease the itching which it feels there, doth by degrees diminish the thickness of them, and so they are at length insensibly cut by the Teeth which are under. If these things do no good, because the Gums are either too-hard or too-thick, that the Child may not suffer so much, nor, by reason of the great pain, fall into those accidents by us above-mentioned, let the Gums be cut with a Lancet, where the Teeth are ready; Nurses use to do it with their Nails, but 'tis better to be done with * a ** A thin Groat is as good or better than either.* Lancet, because 'tis not so painful.

There are many Remedies, which divers persons assert have a peculiar property to help the cutting of the Teeth, as rubbing them with Bitches milk, Hares or Pigs brains, and hanging a Viper's tooth about the Neck of the Child, and other such like trifles; but since they are founded more on Superstition, than any reason, I will not trouble my self to enlarge upon what is so useless.

CHAP. XXIX.

Of the Loosness of an Infant.

AS soon as little Infants are in the least indisposed, they very ordinarily get a Loosness, to which their natural Moistness very much contributes, as is taught in the 53th Aphorism of the Second Book; *Quicumque alvos humidus habent, siquidem juvenes fuerint melius degunt his quae siccae habent, &c.* "They, saith Hippocrates, who have a loose Belly in their youth, are in better health than those that are bound. Besides that all Children are of a moist nature, and usually, during their sucking, fed with Spoon-meats, which easily and readily flow from the Stomach and the Guts.

For the most part the Loosnesses happen to them by reason of the great pain they have at the cutting their Teeth; for all the Humours are so overheated, that they are then very thirsty, which makes them, endeavouring to extinguish it, draw more Milk than their weak Stomachs can digest, which corrupting there, a Loosness certainly follows. It may also happen by the viciousness of the Nurses Milk, which may be too hot, (as a new-laid Woman's also is) being ever impure, especially the first five or six daies.

If the Loosness be not accompanied with a Fever or some other accident, it is not dangerous, because it is an indisposition convenient to a Childs nature

nature and moist habit, as also to the food where-with it is nourished. *Hippocrates* assures us as much in the four and thirtieth Aphorism of his second Book. *In morbis minus periclitantur quorum natura, aut aetate, aut tempori morbus magis cognatus fuerit, quam quibus in nullo horum cognatus fuerit.*

"They, saies he, are in less danger, whose maladies are more familiar and convenient to their Nature and Temperament, or their Age, Custom of living, or the Season, than they whose Disease hath no respect to any of these things. But however, if it continues too-long it will not be amiss to remedy it, lest the Child composed of a tender and soft substance (easie upon this account, if one may so say, to be melted) be not too-much enfeebled by it, because of the great dissipation of spirits, which the continual evacuation of humours flowing through the Belly effects.

For this purpose let it suck well purified Milk, giving it but little at a time, to the end it may the better digest it; and to cleanse his Stomach and Guts of the ill humours, which being contained in, and cleaving to them, will yet so much the more hinder the digestion, give it a slight Infusion of *Rhubarb*, or a little compound Syrup of *Succory*: gentle *Anodine* Clysters may likewise be given, made with Milk, Yolks of Eggs, and Honey of *Violets*; and after purging, let them be made with *Plantane* water. One may then also mix the Yolk of an Egg in the Pap he eats; rub the Belly with Oile of *Quinces*, and lay upon his Stomack Compresses dipt in Red-wine, wherein *Provence-Roses* are boiled; ever having respect above all to the cause of the Looseness, and the Accidents com-

plicated with it, and using Remedies convenient to their nature.

CHAP. XXX.

Of Vomitings in Children.

ONe need not wonder at the Vomiting of little Children, because 'tis an accident more ordinary and common to them than any other; nor need one be very careful to stop it, unless it be continual, and a little excessive; in which case 'tis fit to remedy it, to prevent the consequents of a worse Malady.

Vomiting usually happens to Children, because they often draw more Milk than their little Stomach can easily contain or digest, with which being over-charged, they are obliged to cast it up: it may also happen to them, because 'tis bad Milk. The efforts of a violent Cough may cause the same thing, which also may be effected by their Nurses too rude dancing them in their arms, shaking them too much by violent rocking their Cradle; so much as by those motions the Milk, being too much agitated and disturbed in the Stomack, cannot be well digested; but very often also, because it cannot be well contained in it, the Infants Belly being too much compressed and swathed with his Swathes and Blankets in which he is swaddled, which makes him throw it up, because of the pain he feels. To all these causes the sweetness and luke-

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lute-warmness of the Milk, wherewith the Infant is nourished, contributes much.

When the Vomiting is too-frequent, 'tis fit it should be stop'd, lest by the Infants continual rejection of the Nourishment, he becomes extreamly weakned for want of Food; and possibly the action of the Stomach so perverted, that it can hardly be re-established after that this Action is turned into an habit.

To cure this Vomiting, regard must be had to that which causeth it: as, when the Child sucks more than it should, the Nurse must not give it so much, and but little at a time, that the Stomach may the easier contain and digest what it receives: if it be the ill quality of the Milk, the Nurse must be changed for a better; if by a Cough, it must be helped by things fit to appease it, according to the different causes wherewith it is excited. The Nurse must not dance it so rudely, nor rock it so fiercely after it hath sucked, that the digestion of the Milk may not be hindered by these agitations. Care must likewise be taken, that it be not too close wrapped and swathed upon the Stomach, but that it may be freely extended according to the quantity of Milk received; and besides all this, if any ill humours be contained in it, it will be very convenient to purge the Infant with a gentle infusion of *Rhubarb*, or half an Ounce of compound Syrup of *Succory*, and after that it hath been thus purged, if judged to the purpose, it may take a little Syrup of *Quinces* to fortifie the little Stomach, having also upon the region of it for the same purpose, Compresses wet in
Red-wine

Red-wine, in which *Provence-Roses*, Cinamon and Cloves have been boiled.

CHAP. XXXI.

Of a Hernia, or Rupture in Children.

TO the end we may not deviate too much from our undertaking, which is only to observe some particulars concerning Infants maladies, we will not stay to explain, nor throughly to treat of all the different kinds of *Hernia's*, but be contented slightly to examine those which usually happen to them, as the Intestinal; sometime as compleat in Children as men, as when the Intestine falls into the bottom of the *Scrotum*, at other times incompleat when it doth not pass the Groine: It may be likewise sometimes, though rarely, the **Epiplon*, which makes the Rupture, and falls down alone as the Intestine doth; and sometimes both the one and the other are there found together.

The most frequent causes of Ruptures in little Children are their fierce Cries and violent Coughs, to which the Moistness and Softness of their Bodies doth not a little contribute; and also when they are too-straitly swathed, because their Belly (not being able to be sufficiently enlarged, when they cry or cough much) is strongly forced downwards, by reason of which these *Hernias*, or Ruptures, are easily made.

This

This mischief must be remedied as soon as discovered; for the longer it is neglected, the harder it is to be cured: because by the continual falling of the Intestine, the place through which it falls, is every day more and more dilated. But as *Hernias* easier happen to Children, because of the tenderness of their Bodies, so likewise are they sooner cured than in antient persons, because the parts dilated are easier reunited, as well by reason of their tenderness, as that the Intestine (being reduced and contained in its natural place whilst the Child is growing) is enlarged in proportion to all the other parts of the body, and the place dilated lessens by little and little, and closeth by the compression of the Truss or Swath rightly applied upon it.

Whilst Children are in Swadling-Clouts, the cure of true Ruptures, which happen to them, must not be undertaken, but by a Swath-band, which alone is capable to cure both the perfect and imperfect: and is effected by a Rouler, putting a Compress or Truss just upon the Rupture, after having first reduced into their natural situation the Intestine and *Epiploon* likewise, if it were fallen down; To do this, you must lay the Child with the Head low, then with both Hands reduce it by degrees, and thrusting with one the Tumor very gently, and causing with the other the Intestine to re-enter, just at the dilatation, and keeping in with it that which re-entred, to hinder its coming forth again, continuing to do thus, until the reduction be compleated, after which one must lay a Compress or Truss thick enough upon the dilated place, then swathe it on this manner: Take

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a Rouler of breadth and length proportionable to the bigness of the Child, so that it may go three or four times about, lay then the first end upon the Childs Belly, towards the side opposite to that where the *Hernia* is, afterwards guide it under the Buttock, then conduct it in bringing it upwards over the applicated Compresse, bring it thence under the Reins on the same side quite round the Body, afterwards pass it as at first, continuing to do so 'till you come to the end of it, ever observing that the circumvolutions which pass over the Groin, be brought from below upwards, to keep it the better up, and to fasten them all with small Pins a top of the Compress, that so the swathing may be more firm.

It will be very convenient that the Nurse carry the little Infant to a Chirurgeon, to learn the manner of reducing the Rupture, and exactly using the Swath, instead of which a small Truss may be had, which will be yet better for this purpose, because there is not so much trouble in removing and undoing it so often as there is in a Swath ; for which purpose it ought to be waxed, or oiled on each side, that the Childs excrements may not rot it. Now if one would have these Swathes or Trusses speedily to cure the Rupture, 'tis very fit the Child should keep its Bed, at least fourty daies, or more according to the bigness of the dilatation : let care be taken to prevent its Crying and Coughing as much as may be, and that the Belly be not swathed too strait, lest those things do again force the Intestine to come forth. Some before they apply the Swath, foment the part with Smiths-water, and then lay the Plaister of *contra Rupturam* upon it ;
but

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but this is not necessary, when a Truss or Swath may be sufficient, provided it be well applied.

Besides these true *Hernia*'s, of which we have just spoken, there may be also false ones, wherein no part falls down, but only there is a distention of the Membranes of the *Scrotum* and Testicles, caused by some matter there collected, as well through the natural weakness of those parts, as with being bruised and pressed in a bad Labour, amongst which the watry and windy happen ofteneft, for as for the fleshy and varicose, they happen never, or but very rarely in little Infants.

For the cure of the watry, called *Hydrocele*, which is caused by waters contained in the common or proper membranes of the Testicles, apply to the swelling Remedies that may resolve and dry up the Waters therein, and dissipate the wind, and afterwards fortifie the parts. They may be resolved with Fomentations of the Decoction of *Camomil*, *Melilot*, *Rue*, *Majoram* and *Fennel*, in which also the Compresses to lay upon them may be dipt; they may be dried with *Lime-water*, wherein a little *Allum* is dissolved; and after that the greatest part of Waters are resolved and dried away, let the parts be fortified, lest others be there ingendred, by putting to it Compresses wet in red Wine, wherein Roses and Allum have been boiled, ever having respect to the cause of the *Hydrocele*, and that which feeds it; but if these Remedies prove in vain, the Tumour must be opened, to evacuate the Waters by a single prick of a Lancer, with which one must be satisfied in little Infants, who for the weakness of their Age, tenderness of their Bodies, and want of the use of their reason, cannot then

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then undergo a greater Operation for the Cure of an *Hydrocele*.

CHAP. XXXII.

Of the Scabs which are upon the Head and Face of young Children.

WE intend to treat here only of such Scabs as have no malignity, and are only caused by the superfluity of some Humors, which for being simply over-heated, are easily conveyed to the Head and Face, where they make little Pimples, in which these humours continuing are corrupted and converted into matter, which after eat through and ulcerates the simple superficies of the Skin, and drying round about the place where it came out, make those crusts there, usually called Scabs, with which some Childrens Head and Faces are every where so covered, that they seem to have a Cap and a Mask of a piece, for which nothing can be seen, but only the Eyes and edges of the Lips, which are exempt from it.

Many persons will have these Scabs, as well as the Meazels and Small-pox, to proceed for the most part from some superfluity and residue of the menstruous blood, from which the Infant purgeth it self after it is born; which because it cannot be well rectified, is so driven out that it may be cast off as useless: but it is often from the ill nourishment of the Children; who sometimes suck more
Milk

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Milk than they can digest, as also from the ill quality of it, whence is engendred a quantity of viscid and corrupt humours, causing these Scabs, which come most upon the Head and Face, because they are moister, especially in Children, than any other part of the body.

These Scabs may be known not to be malignant, when they are superficial, moist and yellowish, and when the Scabs being taken off, the Skin appears red and crimson, without being deeply ulcered.

The course of these humours must by no means be hindered, by driving them inwards, because their evacuation defends little Infants from many ill Diseases; and we ordinarily see them, whose Bodies have a long time purged away such superfluities, to be in better health after they have cast forth all this kind of corruption: and as *Guido* saith very well, Though to the sight these Scabs are ill, yet in respect of their cause they may be very good; because nature is thus accustomed to purge the Infants bodies in thrusting out these excrements, but endeavours must only be used to hinder the generation of more of these ill humours in the Child; wherefore a healthful Nurse must be provided for it, whose Milk is perfectly purified, and very cool; the Childs Belly must ever be kept open, and purged if necessary with a little Syrup of Roses or Succory, that so the humours may not be sent in too great abundance to the Head, nor the *scabies* under the Scabs may not, eating and corroding the Skin, cause deep Ulcers; it will not be amiss also to make the Scabs fall off, that there may be a freer vent or issue, for which fresh Butter is ordinatily made use of, rubbing them therewith to moisten them,

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them, or with the Liniment of Oile of sweet Almonds, laying afterwards a Cabbadg or Beet-leaf upon it, changing them twice or thrice a day, to avoid the offence and corruption of the moisture which these things draw forth.

These things ought to be continued till the Child be perfectly cured, and no other, because they do very much suppurate the Scabs; and only draw away the superfluous humours, which should in no wise be retained within, for fear lest a worse malady happen after the evacuation, of which the places will dry, and heal of themselves; all this while the Childs hands must be pinned down, lest by rubbing and scratching the Scabs when they itch, should by irritating these parts cause an inflammation, whereby a yet greater abundance of humours will flow thither.

CHAP. XXXIII.

Of the small Pox and Meazels in Infants.

THe small Pox is a contagious Disease to little Infants; which sometimes also happen, though more rarely, to persons already advanced in age, in which abundance of Pustules all alike do break forth throughout the superficies of the Skin, engendred from the impurity of the Blood and other Humours which nature there casts out, as an universal emunctory to cleanse the whole body of them.

Many antient as well as modern Physicians attribute

tribute the cause of this disease to the residue of the menstruous blood, wherewith the Infant was nourished in the Mothers Womb, which after its birth coming to be heated, and to boil in the Vessels, is separated from the whole Mass of Blood which hath been since engendred, and is spread throughout all the superficies of the Body, to be in that manner rejected and expelled. This reasoning (according to my opinion) is not very probable; for we daily see many Men and Women, who though very aged, have never had this Malady, which they could never have avoided, if it proceeded from the remainder of the menstruous Blood; wherewith every one without exception is nourished in their Mothers Womb. They which maintain this opinion, reply, that though some persons be exempted from this Disease, 'tis because their strong and robust nature could digest and consume those superfluities, or else purge them off by other wayes, as by a Loosness, or in some manner more insensible: However they must confess and agree, that this menstruous Blood (if it were that) could not remain hid and quiet in the Body for 30, 40, or 50 years after Birth, without producing its effects, as we see in several that have not this disease 'till those years; but 'tis much more credible, that the cause of the small Pox is the corruption of a contagious Air, which doth principally infect and spoil the blood of Infants and Youth, who are more disposed to it than they that are further advanced in years, because of the tenderness and softness of their Bodies, and more at certain years and some seasons than at others, as it may easily be perceived every day; for in pestilential times, the

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small Pox is much more common in the Spring and Summer, than at the end of Autumn or in Winter.

The small Pox doth differ from the Meazels, though they are so like in the beginning, that often it is difficult to distinguish them one from the other 'till after the second or third day, when the small Pox, which at first appeared like the Meazels, begins to rise into *Pustules*, and to whiten. The Meazels are caused of a Blood *bilious* and overheated, which only makes red spots throughout the Skin, without or with but very little elevation, which comes soonest and principally on the Face; but the small Pox proceeds from a sanguine and pituitous matter, which being more thick and viscous, produceth many *Pustules* rising high, and by degrees growing white and ripening, after which their matter drying away, they are converted into Scabs.

Of the Signs of the small Pox, some precede and others accompany them; they that precede are a Fever, Sottishness, Dizziness and Pain in the Head, very troubled Urine, weariness and pains in the Reins and Loins, reachings and vomitings, difficulty of breathing, frequent Yawnings, Sneezing, itching of the Nose, redness of the Eyes, and universal weariness all over the Body: but when the small Pox begins to come forth, there appears about the third or fourth day many Pimples rising every where, which grow and augment as well in bigness as number, 'till the eighth or ninth day, during which time they ripen and whiten by degrees, the Head and Face swells, the Eyes are closed by a great flux of humours

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mours thither, the Nose is stopped with excrements which there dry, the Patient is troubled with a hoarse Voice, a dry Cough, sore Throat and great difficulty to breath; and then all the parts of the Body are so swelled through the abundance of Pimples, that it appears blown up and monstrous.

There may be two kinds of small Pox, according as it is more or less malignant; the first is that which is accompanied with but a simple emotion of a Fever, only stirred up by an ebullition of Blood and Humours, soon ceasing from the beginning without any evil accident, which ripens, suppurates, and is easily and speedily cured; the Pustules of these do rise full, and the matter is white, smooth and well concocted, and the Infants easily escape it, if they are but well tended.

But the other sort of small Pox, totally malignant, is that which is caused from some contagious and pestilential humour; where the Pustules are flat, brown, obscure or livid, having small black spots in their middle, they come forth but slowly, and no Suppuration follows, or 'tis very bad, sanious, watry, and accompanied with pernicious accidents, as a malignant Fever, Phrenzy, great difficulty of Breathing, Faintness, Dysenterie, and others which often are mortal, or at least malignant Ulcers, foulness of the bone, loss of sight, disfigurement and great deformity of the Face, or lameness of some member, according to the places where these vicious humours are conveyed and retained. These havocks are caused by that which all Women call usually the Master-pock, which is nothing else but many Pimples, by their nearness and bigness joining together, and mixing their matter, which
D d 2 being

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being thus in great quantity amassed into one place, gnawes and corrodes the part deeper, than if they were spread and disperst in many distinct *Pustules*; for which cause its cavity remains much more hollow and deformed, by reason of the great loss of substance there usually made, and depositing or transporting this villanous matter upon the Bones or other parts, it foules them, or causes their other accidents, as we have recited.

The Prognostick is drawn from the different nature, which we have now explicated: for if the Fever be small, and that it ceases proportionably to the coming forth of the Pimples, if they be not in too great quantity, and that they ripen and whiten speedily, it is a good sign; but if the Fever be violent in the beginning, and augments every day with difficulty of Breathing and other accidents, according as the Pimples come forth; if they are in great number, black, flat, dry, and without Suppuration, it is a sign of death: besides Infants are not in so great danger as elder persons, in as much as this Disease is more agreeable to their Age and Nature, and that they also have a thinner and softer Skin, through which this matter is easier expelled than through theirs that is harder, and whose Pores are less open.

As to the Meazels, they are never so dangerous as the small Pox, because its matter being more subtle, is much easier and sooner evaporated, which usually terminates in three or four daies, at the end of which sometimes follows the small Pox, which often makes some, as we have said, take them one for another in the beginning, at which time they appear almost the same.

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The Cure of the small Pox particularly consists in the force and vertue of nature, that endeavours to expel these malignant humours; wherefore it must be assisted to overcome them as much as may be, and fortified that it may be able to finish the work it hath undertaken, being very careful not to divert it from its operation by an untimely bleeding, or a Medicine unseasonably given. To remedie this Malady, keep the Child to a good diet, avoiding solid meats all the time, giving it only Spoon-meats, as Broaths made with Veale and Fowl, or a little of a good Jelly; let his drink be *Ptyisan*, made with cleanted *French-Barly*, the roots of *Dogs-grass* and *Liquorice*, and a few *Raisons* of the Sun. If it be a sucking Infant, he must have no Pap 'till he be perfectly cured; and since then by reason of his age he cannot receive Remedies often enough, nor other food at the Mouth than Nurses milk, let her observe a good Diet her self, to refresh and temper her Milk, as much as may be; let her not carry the Child into the Aire, but keep it in a close Room neither too hot nor cold: for too hot Air weakens it extreamly, by greatly resolving and dissipating the spirits; and a too cold Air drives the Humours back into the Body, and hinders the coming forth of the small Pox. Some advise it to be kept in a Bed hung round with Red Curtains, because this Colour doth ordinarily move the Humours from the Centre outwards; but this often hurts the Eyes, and inflames them by its vivacity, to which also in this disease there happens a great flux; wherefore I believe a softer Colour, what ever it be, ought to be preferred; but custome will have it so. The Infants sleep must be

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moderate,

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moderate, that the Humours being thereby better concocted and digested, the coming forth of the Pustules may be the freer; it ought not to be to a Stupidity, for that would be a sign nature were oppress'd; let the Belly be kept moderately open with gentle Clysters, that the Excrements may be thence evacuated, if too long retained.

But when the Small Pox is in the beginning accompanied with a great Fever, difficulty of Breathing and other Accidents, the principal Remedy is Bleeding, although most Women not understanding the Case do condemn it, and will not suffer it to be done to their Children, imagining that it would hinder the coming forth of the small Pox; and if it happens that the Children after bleeding die, although it be through the greatness and malignity of the Disease, they will not fail to impute it to Bleeding: but it is very certain this is a profitable Remedy in the beginning of this Disease, for by this means all the Humours are cooled, and the fulness of them being evacuated, Nature easily commands and overcomes the rest. As to purging, it ought not to be used in the beginning, lest by the agitation it makes in the humours, Nature be hindered and diverted from doing its work; but towards the end it will be very convenient to empty the remaining impurities, lest these reliques falling upon some parts should spoil them.

All this while such things must be used as may fortifie the Heart; as Cordials, not of the sort of those pretended Cordial and Threacle Waters, which ordinarily are made use of, and rather cause one to vomit, than fortifie the Heart; nor those powders of Pearl and *Bexor*, and other such like trifles,

trifles, which many superstitiously believe, without any reason, to have a *specifick* quality to this purpose; but the truer and more *salutary* Cordials are, the breathing of sweet and clear Air, and wholeſom diet, with the moderate use of things agreeable to the Stomack, and which please and comfort it; such as are Syrup of *Lemmons* and *Pome-granats*, mixed with the Childs *Ptyſan*; or a little Wine well allayed with Water, which is the Cordial of Cordials: if the Fever be not great, and that it is a sucking Child, the Nurſes Milk ought to be ſufficient for all.

As to outward Remedies, or application to the *Puſtules*, 'tis beſt to leave it to Nature, only aſſiſting it as we have ſaid. And to the end they may ripen eaſier, aſſoon as they begin to appear, which is about the third or fourth day, anoint them, principally thoſe of the Face, with oile of ſweet *Almonds*, rubbing them with a Feather dipt in it: ſome mix a little Cream with it, others uſe only a little freſh Butter, and others again old Hogſgreafe melted, and often waſhed in *Roſe-water*, and well beaten in a marble Mortar, with which they anoint them 'till they are perfectly healed: and when the *Puſtules* are ripe enough, which is known by the whiteness and itching that follows, and is uſually about the ninth day, the biggeſt of them may then be pierced to empty the matter, leſt by its too long ſtay there it ulcerates and corrodes the parts too deeply. This may be done with a gold or ſilver Needle, or by cutting off the tops with *Sciſſers*; afterwards to dry them up, anoint the Face with a Liniment made with freſh Cream mixed with white Chalk, continuing this Remedy

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'till the Scabs be quite fallen off, using it Nights and Mornings; or else with Ointment of Roses mixed with a little fine powdred *Ceruse*.

To hinder that the small Pox do not cause too great a flux of humours upon the Eyes, 'tis good using from the beginning some cooling Remedies, that, by moderately driving back, may hinder it. There is ordinarily used Rose-water and *Plantane*-water mixed together, with which they bathe them from time to time; most Women steep a little *Saffron* in it; but because of its strong scent, I chuse rather the Waters alone: The Nurses Milk is likewise very good to appease the pain. Care must be also taken from time to time to unstop the Infants Nostrils, that he may breath the freer, which may be done with small linnen tents; and to help the Throat, which is alwaies hoarse, a little Syrup of *Violets* mixed with his *Ptyssan* may be used; and to cut the phlegm that sticks there, give it a little Syrup of *Lemmons* or *Pomegranats*, or a *Gargarism* of Vinegar and Water; but the Milk only is sufficient for sucking Children. Let us now see how a sucking Child must be governed in the *French* Pox.

CHAP. XXXIV.

How to cure the Venereal Lues in Infants.

IF the small Pox, of which we have lately discoursed, be a contagious malady, it is not so ordinarily but in respect to Infants, for it is hardly communicated

communicated by frequentation to elder persons; but it is not the same in the great Pox, the venome of which is so pernicious and susceptible, that a single Child that hath this Disease is capeable to communicate it, as it hath been very often seen, to whole families, and as well to old as young. 'Tis a sad thing to see poor small sucking Innocents afflicted with so ill a Disease, which besides that it makes them suffer the pain of a sin of which they are innocent, it makes them also very often be abandoned by every one, and deserted in this deplorable state by their own Mother her self.

Those that have this Disease so young, either bring it with them into the world from their Mothers Womb, which may be known if she were infected with it; or if it had at its birth *Pustules* and Ulcers in divers parts of its Body, and principally about the Belly, towards the Fundament, and on the inside of the Thighs, as also on the Head: or else they got it since, and took it from their Nurse, who is in like manner infected with it; then the first impressions will appear about the Mouth of the Child, where Ulcers will breed, because of the acrimony of the ill Milk it sucks, which being its nourishment, will not fail to communicate its venom to all the parts of the Body.

'Tis very hard to cure Children that are born with this disease, for they very soon die after; because their whole substance cannot be reestablished, having for its foundation had so bad a principle, as the Mothers Blood infected with such a venome, wherewith they have been engendred, formed and nourished: but as to those who have received it from their Nurses only, there is much more hope of,

of, and less difficulty in their cure; because the venom of the bad Milk not communicating it self immediatly with its whole substance in the Vessels of the Infants Body, doth not there make so great a spoil as in the other, where the Blood, with which it is only nourished whilst it is in the Mothers Womb, is conveighed to him and spreads, such as it is, throughout all the parts of its Body: for then there is only the purest of this Pockey milk, or to say better, the less impure, which (being changed into *Chyle* in the Stomach, and purged by the Intestines of the greatest part of its Excrements) can by mixing afterwards with the mass of Blood, alter and corrupt it by the ill quality that alwaies remains in it, notwithstanding the different preparations it hath received; however the Child infected by the Nurse can never be cured, so long as she suckes it, forasmuch as her Milk is ever infected with that corruption and venome; and the worst is, that changing her for another, as one is obliged to do to cure it, 'tis a very great hazard if it doth not communicate this contagious malady to her.

It may be said in general, that the cure of the great Pox is very difficult in little sucking Children; for by reason of the feebleness of their age, they cannot then neither take nor support without great danger of their life, the violence of Remedies convenient for it; wherefore it were to be wished, that by a palliative Cure one might delay a compleat one, until they be *three* or *four* years old; but since there are very many who would perish before they were so much as a year or two old, because this filthy disease doth ever increase, and
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the symptomes of it do much easier make impressions upon their Bodies, because of the delicacy and tenderness of them, than upon such who are more advanced in years; therefore one is sometimes obliged to undertake the cure, though the Child be yet sucking. This enterprize is then in truth very perillous, but one is constrained to resolve on it, when there is no appearance or hope that the Child can otherwaies escape. Wherefore the means follow.

First therefore change the Nurse, if she be infected, for one whose Milk is well purified; and if it be not so, let her be blooded and purged, as the case requires. Most would have her, during the whole course (that her Milk may be very Physical) use a *Treacle-water* and a *Sudorifick* decoction; but besides that I think these things will be very ineffectual, I fear lest by heating her Milk, it may prejudice instead of profiting the Child; and I should advise her rather to keep a temperate and cooling diet; and that she may not herself receive any hurt, it will not be amiss for her to wash her Nipple with Wine, every time she gives the Child suck; and that she now and then take a Purge, to keep her Body clean and less disposed to receive this infection.

But very often these poor little Children thus afflicted, are so unhappy, that they cannot find any Nurse, that will by giving them suck, expose themselves to the hazard of getting the disease: in this case we must choose one that hath abundance of Milk, and is soft milcht, to the end that by gentle squeezing of it, there may fall enough into the Infants Mouth for its nourishment: or that by having milked some in a glass, they may feed it with a Spoon,

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Spoon; or else they may dip a piece of Linnen rolled up in 'it, and give it to suck. But the best way to avoid the Childs spoiling any Nurse, and to exempt it from such a subjection, is to let it suck a young Goat, fed on purpose with good Hay and other convenient things, that so the Milk of it may be very good.

As to the Child, it is most certain it can never be cured of a confirmed Pox but by the use of Medicines wherein Mercury is mixed, which hitherto is esteemed the proper Antidote to the poison of this Disease: wherefore after bleeding and purging him with Syrup of Roses, or of *Succory*, let him, if his strength permit, be a little anointed with a *Mercurial* Ointment, wherewith only the Pustules and Ulcers must be rubbed, in doing which by degrees, reiterating the anctions, a small Flux will be raised, which must be almost insensible, lest the Humours being stirred and conveighed in too great abundance to the Mouth, cause it not to swell too much, and breed there naughty Ulcers, which may hinder the Sucking of it: Wherefore but a small quantity of *Mercury* must be mixed with the Ointment, being better to be a longer time a curing, than too precipitate: for this cause having used a small Friction or two at the most, forbear five or six daies, to mark to what degree the Infant will be moved with it; and then by the effects of the first, you may judge whether it is necessary to reiterate them, and with what dose, which can never be precisely directed; because all the habits of Infants are as well different as those of men, amongst whom some will spit sooner with one Friction, than others with six immediatly after one another;

another. But in this case there is nothing near so great danger of hurting by too little, as there is by too much: it being more easie to repeat and augment the dose when not strong enough at first, than to stop the effects when it exceeds.

One may, instead of Frictions, or together with them, wrap the Infant in a bed lightly perfumed with *Mercury*; and as to the Ulcers which breed in the Mouth, let the Nurse wash them with Barley-water boiled with *Agrimony*, adding to it a little Honey of Roses, or Syrup of *Worm-wood* with white-Wine, wherewith also the Nurse may often wipe off the froth which is usually there gathered; which, that he may void the easier, let him lye upon his side, and not upon his back, lest the slime falling into the Stomach, or upon the Lungs, should choak it. Let him alwaies be kept warm, without carrying him to the Air, watching diligently the effect of the Remedy, which in this case ought to be managed by a prudent and expert Chirurgeon, and not left to the discretion of every one.

The common way to make this Ointment is to take half an Ounce of *Mercury*, which must be well cleansed from its filth, by passing several times through a double Linnen, afterwards beat it well in a Mortar with four Ounces of Hog's-grease, so much and so long 'till it is wholly incorporated; which being done, take two drachms of this Ointment for each friction, and more or less according as the Infant appears to be strong and disposed to be moved by it, of whom chiefly the Pustules and Ulcers must be anointed, as we have said. *Pigra* affirms, that he hath seen Infants cured by being rubbed

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rubbed with Hogſ-grease, only stamp in a leaden Mortar ; but it is ever by reason of the *Mercury*, from whence the Lead derives all its quality.

CHAP. XXXV.

How to binder Childrens growing Squint-eyed, awry, crooked, or lame.

THe Bodies of little Children, by reason of their tenderness, are like soft wax, or young Trees, to which 'tis easie to give such a Figure, as is in the beginning desired ; wherefore one must be then very careful that the good conformation of their small Members be not vitiated for want of prudent conduct, or else being so, they may be by a diligent care reduced to their natural state ; now amongst other things, endeavour to prevent the Childs squinting, growing awry, crooked or lame, and to redress any of these whatsoever, as much as possible.

To prevent its Squinting, chuse a Nurse whose sight is stable and right, lest by her ill example he gets an ill habit ; and as we have said elsewhere, let the Cradle be ever so placed, that being laid in it, he may alwaies see the light directly before him, either of day, candle, or fire, lest by being on one side, he come to turn continually his Eyes that way, whereby he will be in great danger of growing asquint : *Paulus Aeginetus* and *Parenus* also would have a squint-eyed Infant's sight redressed, by putting a Mask upon his Face, with only

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only two small holes right against the Eyes to see through ; which will cause him, perceiving no light but through those holes, to hold his Eyes ever that way, by means whereof they will be established in a right scituation, and by degrees quit the ill habit they had gotten of looking aside. This counsel seems good in appearance, but I believe it will be very inconvenient for a Child to follow it: besides that the least removing of the Mask, on which side soever, the little holes not corresponding perfectly in a direct line to the middle of the Eyes, the sight will be thereby more perverted.

To prevent a Childs growing crooked, awry, or lame, the Nurse must swaddle its Body in a strait scituation, equally extending the Arms and Legs, and swathing the Child sometimes one way, sometimes another, lest swadling it alwaies one way, the parts should take an ill habit. When he is laid in the Cradle, he must be streight on his back, and not bending; and above all when the Nurse holds him in her Arms, let her carry him sometimes upon one, and sometimes upon the other; for holding the Childs Legs alwaies on the same fashion, it would be a great hazard if they did not at length grow crooked: and it is often the only reason, that so many Children have crooked Legs, especially about the Knees, and this few Nurses take notice of, which notwithstanding is of great consequence.

When these parts have an evil conformation in their Figure, they must be helpt with Swatches and Boulsters conveniently placed, to keep the parts in a good posture whiles the Child is in swadling Clothes, afterwards being grown a little bigger,

bigger, one may use little leather Boots, somewhat stiff, with which the Legs must be straitned; and if the Foot be only awry, Shoes underlaid of one side higher than the other, will serve the turn. When the Breast or Back-bone are in fault, it must be helped if possible, or at least hindered from growing worse, and the fault may be hid, by ordering the Childs clothes with Past-board, Whale-bone, and Tinne, placed where the Chirurgeon shall think fit, to reduce the mishapen part to a better Figure.

Having hitherto mentioned the most ordinary Diseases befalling little Infants, 'tis not necessary here to make a larger description of them; for as for those that we have not treated of, since they may indifferently happen to all sorts of ages, they have nothing peculiar in respect of Children, as to the knowledg or cure of them, but only for the tenderness and delicacy of their Body.

There now remains only for to finish our undertaking, that we give necessary directions in the choice of a good Nurse.

CHAP. XXXIV.

Of the requisites and necessary conditions in the choice of a good Nurse.

THe first and principal of all the qualities in a good Nurse is, that she be the own Mother of the Child, as well because of the mutual agree-
ment

ment of their tempers, as that having much more love for it, she will be much more careful than an hired Nurse, who ordinarily loves her Nurse-child but with a feined and seeming love, having no other end or foundation but the hope of her recompence she expects for her pains by a mercenary hire. Wherefore the true Mother; though not the best Nurse, should ever be preferred before a Stranger. But because there are several that either will not, or cannot suckle their own Children, whether it be to preserve their beauty, as all persons of quality, and most of the Citizens do; or that their Husbands will not suffer them, nor be troubled with such a noise; or that being ill or indisposed, they cannot, there is then an obligation to provide another Nurse, which should be chosen as convenient for the Child as may be.

Now even as we see Trees, though of the same kind, &c growing in the same place, being afterwards transplanted into another soil produce fruits of a different taste, by reason of the nourishment they draw thence; Even so the health of Children, and sometimes their manners; depends on the nourishment they receive at the beginning: for as to the health of the Body, 'tis well known it answers the Humours that all the parts are nourished and maintained with; which Humours ever retain the nature of the food whereof they are engendred: As for the Manners, they ordinarily follow the Temperament, which also proceeds from the quality of the Humours, and the Humours from the Food. By this consequence, as the Nurse is, so will the Child be, by means of the nourishment which it draweth from her; and in sucking her, it

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will draw in both the vices of her Body and Mind. This appears very easily in Animals that suck a strange Dam, for they alwaies partake something of the creature they suck; being accordingly either of a mild or fiercer nature, or of a stronger or weaker Body; which may be noted in the example of young Lions, tamed by sucking a domestick Animal, as a Cow, Ass, or Goat; and on the contrary a Dog will become more furious or fierce if it sucks a Wolf.

The necessary conditions in a good Nurse are usually taken from her Age, the time and manner of her Labour, the good constitution of all the parts of her Body, and particularly of her Breasts, from the nature of her Milk, and in fine from her good Manners.

As to her Age, the most convenient is from twenty five to thirty five years of age, because that during this space the Woman is most healthy, strong and vigorous: she is not fit before five and twenty, because her Body not having yet acquired all its dimensions, cannot be so robust; nor after thirty five, because not having Blood enough in so great abundance, she cannot have Milk enough for the nourishment of the Child. However some Women are indifferent good Nurses from twenty to forty, but very rarely before or after.

As to the time and manner of her Labour, it must be at least a Month or six Weeks after it, that so her Milk may be thoroughly purified; because at that time her Body is usually cleansed of the *Lachrymæ*, which follows Labour, and the Humours are no longer disturbed with it, nor must it be above five or six Months, that so she may be able

to make an end of nursing the Child, that there may be no necessity to change her afterwards for another; she must not have miscarried, but have been brought to Bed at her full time of a healthful Son, for 'tis a mark of a good constitution; and it must be her second or third Child, that she may by experience know the better how to tend her Nursery.

As to the healthful constitution of her Body, 'tis the principal thing, and on which almost all the rest depends. In general she must be very healthful and of a good habit, not subject to any distemper; that she come of Parents that never had the Stone in the Reins or Bladder, not subject to Gout, Kings-evil, Falling-sickness, or any other hereditary disease; that she hath no Spot, nor the least suspicion of any *Venerical* Distemper; that she have no Scab, Itch, Scald, or other filth of the like nature; that she be strong, the better to watch and tend the Child in all things necessary for it; that she be of a middle Stature, neither too tall nor too low, too fat nor too lean; because a person of such a natural Symmetry performs all the functions more perfectly, and as is usually said, *in medio consistit Virtus*. But above all she must not be with Child; let her be of a Sanguine complexion, which may be known by her Vermilion, its colour, not altogether so red, but inclining to white; of a firm flesh, not soft; she must not likewise have her Courses, for that's a sign that her Blood is too hot, either because her Temperament is such, or from some amorous passion or otherwaies; neither must she be subject to the *Whites*, for such superfluities are a sign of a bad habit; she must not

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be red haired, nor marked with red Spots ; but her Hair must be black, or of a Chesnut brown ; she must be well shaped, neat in her Cloaths, and comely in her Face, having a sprightly Eye, and a smiling Countenance ; she must have good Eyes, sound and white Teeth, not having any rotten or spoiled, lest her Breath should smell ; she ought to have a sweet voice to please and rejoyce the Child, and likewise ought to have a clear and free pronuntiation, that he may not learn an ill accent from her, as usually red-hair'd have, and sometimes also those that are very black-hair'd and white skins ; for their Milk is hot, sharp and stinking, and also of an ill taste ; she must not have a strong Breath, as they who have a stinking Nose, and bad Teeth, as we have said before ; because the Nurse that constantly kisses the Child, would infect its Lungs by often drawing in her corrupted Breath : her Breasts ought to be pretty big, to receive and concoct there a sufficient quantity of Milk, but not big to excessive ; they must be sound and free from Scars proceeding from former Impostumes ; they must be indifferent firm and fleshy, and not flabby and hanging, that their natural heat may be the stronger. The Nurse must be broad breasted, that her Milk may have more place to be prepared and digested in, and because 'tis a sign of abundance of vital heat : As to the Nipples, they must be well shaped, that is, not too big, nor too hard, nor grissly, nor sunk in too deep ; but they must be a little raised, and of a moderate bigness and firmness, well perforated with many little holes, for to be soft milcht, that the Child may not take too much pains to draw the Milk by sucking

Tucking and pressing them with its Mouth.

If a Nurse hath all these recited good qualities respecting all the parts of her Body, there is reason to presume her Milk will be well conditioned, which may be known first by its quantity, which ought to be sufficient for the Childs nourishment; nor must it be too much, lest that not being all drawn forth, it curdles and inflames the Breast by its too long stay there; but however it is better to have too much than too little, for she may give the overplus to another Child. It must be of a middle consistence, neither too waterish nor too thick; which may be easily judged, if the Nurse milking some into her hand, and turning it a little on one side, it immediately runs off; but if it remains fixt, without running by the turning of the Hand, 'tis a mark it is too thick and viscous: The good is of a consistence between both, which slides off gently in proportion to the turning of the Hand, leaving the place whence it slid a little stained. As to the colour, the whitest is the best, and the lesser white it is, so much the worse; it must be of a sweet and pleasant smell, which is a testimony of a good temperament, as may be seen in red-haired Women, whose Milk hath a soure, stinking and bad scent: and to be compleat in every quality, it must be well tasted, that is, sweet and sugared, without any acrimony or other strange taste.

We must not forget the principal and best Conditions of a Nurse, which consists in her good manners: wherefore let her be vigilant and careful to cleanse the Child as soon as there is occasion; let her be wise and prudent, not subject to choler nor quarrellsome; as well because in the beginning

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it may make bad impressions on the Child, as because this passion doth extraordinarily heat the Milk; she must not be melancholy, but merry and cheerful, smiling often to divert it; she must be sober and not given to Wine, and yet less to the excess of *Venus*; but she may moderately use the first, and not totally abstain from the second, if her nature require it, provided it be with her Husband, which liberty is freely given them by *Fabertius* in his seventh Chapter of his fifth Book of popular Errors, founded upon the experience of all poor Women, who bring up their Children very well, notwithstanding they lie every night with their Husbands; and of his own alledging that his Wife had nursed his Children all very well, although he lay with her every night, and caressed her (as he said) like a good and faithful Husband; but she must forbear at least an hour or two after to give the Child suck.

If a Nurse hath all or most part of these conditions here specified, as well respecting her person as manners, and that she maintaines this condition by a Diet fit for the Childs temperament, and not contrary to her own, there is then great reason to believe she is fit to make a very good Nurse, and to bring up in perfect health the Son of a Prince.

In fine, loving Reader, I believe I have now acquitted my self of my duty towards the Publick, in communicating the knowledg that God hath graciously bestowed on me concerning the Diseases of Women with Child and in Child-bed: I pray God, the fountain of all Science, that he will vouchsafe to teach you the right way of helping them,

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them, and their Children in these cases, and make you yet better able to conceive these things, than I have here explained them, and that all may be for ever to his greater glory.

The End of the Third and last Book.

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